Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

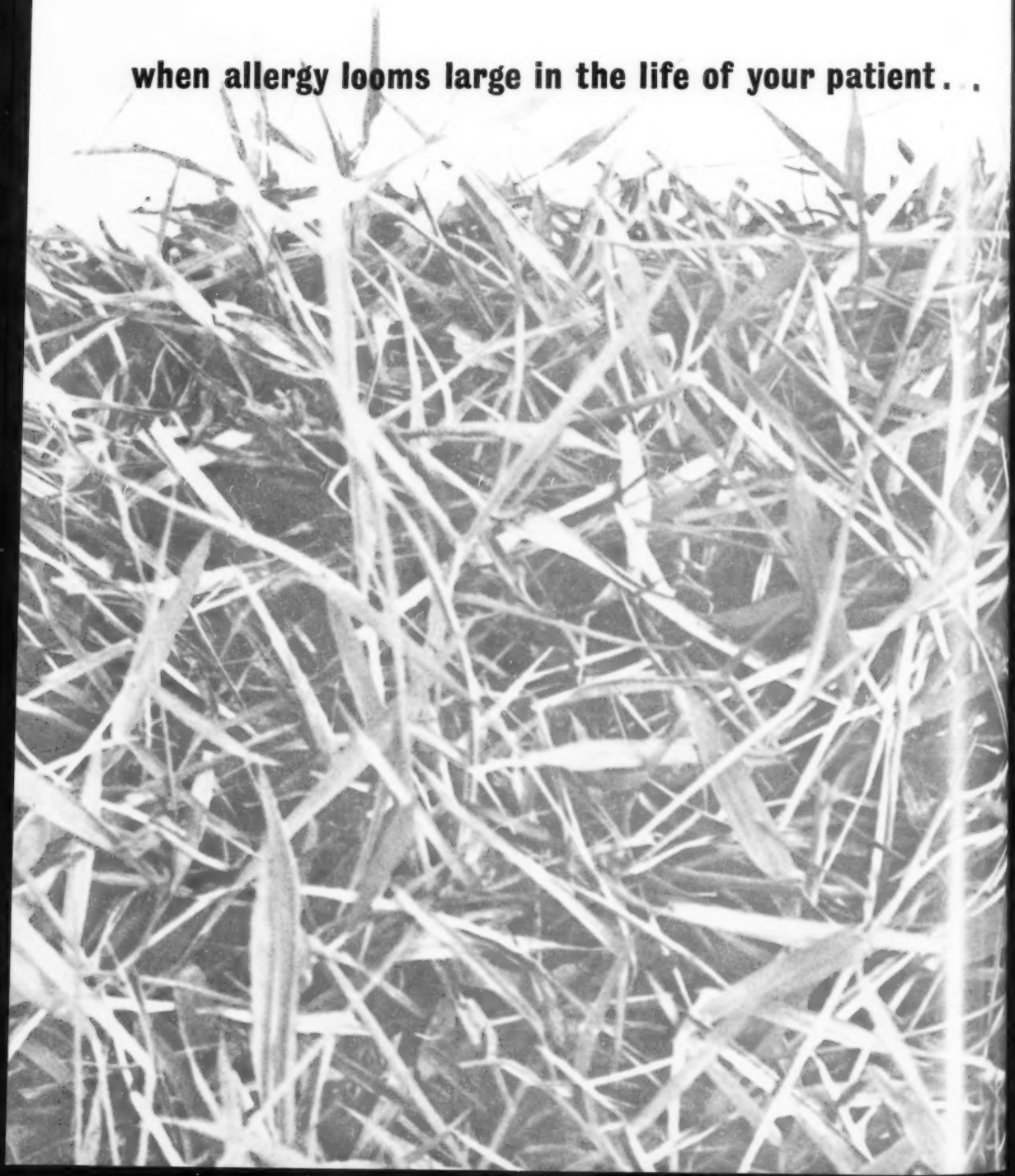
MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

Volume 8 Number 5

May, 1961

BENADRYL Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a variety of forms includ g: Kapseals® of 50 mg.; Capsules of 25 mg.; Emplets® (enteric-coated tablets) of 50 mg.; in aqueous solutions: 1 c. Ampoules, 50 mg. per cc.; 10- and 30-cc. Steri-Vials,® 10 mg. per cc.; Elixir, 10 mg. per 4 cc.; 2% Ointment (wa er-miscible base); Kapseals of 50 mg. BENADRYL Hydrochloride with 25 mg. ephedrine sulfate. *Precautions:* Avoid sub u-taneous or perivascular injection. Single parenteral dosage greater than 100 mg. should be avoided, particularl in hypertension and cardiac disease. Products containing BENADRYL should be used cautiously with hypnotics or ot er sedatives; if atropine-like effects are undesirable; or if the patient engages in activities requiring alertness or ra d, accurate response.

when allergy looms large in the life of your patient. . .



Arizona Medicine

JOURNAL OF ARIZONA MEDICAL ASSOCIATION

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

May, 1961 Vol. 18, No. 5

Table of Contents

ARIZONA MEDICAL ASSOCIATION REPORTS

BOARD OF DIRECTORS MINUTES (FEBRUARY 12, 1961) 14A
1960-61 ANNUAL REPORT OF THE BENEVOLENT & LOAN FUND COMMITTEE.. 22A

ORIGINAL ARTICLES

FLUORIDE OSTEOSCLEROSIS 123
James D. Nauman, M.D.
OSTEOESCLEROSIS POR FLUORURO 126
James D. Nauman, M.D.
THE TREATMENT OF POISONOUS BITES AND STINGS – II. ARIZONA CORAL SNAKE AND GILA MOSTER BITE 128
Charles H. Lowe, Jr., Ph.D. – Henry P. Limbacher, M.D.
THE USEFULNESS OF CULDOSCOPY IN GYNECOLOGIC DIAGNOSIS 132
William J. Dignam, M.D.
CARDIAC SEPTAL DEFECTS 138
Dwight C. McGoon, M.D.
CIVILIAN MEDICAL PROBLEMS IN THE DEFENSE AGAINST CHEMICAL AND BIOLOGICAL WEAPONS 142
Colonel Dan Crozier, MC, U. S. Army
HE CARRIED THE GOOD BOOK AND THE SCALPEL 151
A. I. Podolsky, M.D.

MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

1960 ANNUAL MEETING – RESUME 33A

PRESIDENT'S PAGE

THE POLITICAL DOCTOR – Lindsay E. Beaton, M.D.

EDITORIALS

DOCTORS IN COURT – Robert S. Tullar 48A
WHICH WAY – Leslie B. Smith, M.D. 49A
CALL A FIG A FIG, A SPADE A SPADE – Darwin W. Neubauer, M.D. 50A
STANDARDIZED FEE SCHEDULE – Darwin W. Neubauer, M.D. 51A
LETTERS TO THE EDITOR – Hugh C. Thompson, M.D. – Frederic B. Rothman, M.D. – Albert L. Picchioni, Ph.D. 51A

IN MEMORIAM

KENNETH G. REW, M.D. 58A

TOPICS OF CURRENT MEDICAL INTEREST

PUBLIC HEALTH IN ARIZONA 1959-60 – Hugh H. Smith, M.D. 62A
BOARD OF MEDICAL EXAMINERS – CERTIFICATES ISSUED JANUARY 1961.... 62A

FUTURE MEDICAL MEETINGS AND POSTGRADUATE EDUCATION

REGIONAL MEETINGS – SUMMER 1961 ..... 70A
NATIONAL TUBERCULOSIS ASSOCIATION 70A
WORLD CONGRESS ON PSYCHIATRY 70A
TRUDEAU SCHOOL OF TUBERCULOSIS AND OTHER PULMONARY DISEASES.. 70A

DIRECTORY

OFFICERS AND COMMITTEES 4A
SOCIEDAD MEDICA DE ESTADOS UNIDOS DE NORTE AMERICA Y MEXICO.... 6A
MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO 6A
WOMAN'S AUXILIARY 6A
INDEX TO ADVERTISERS 80A

Published monthly by the Arizona Medical Association, Inc. Business office at 4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona. Subscription $5 a year, single copy 50 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.

Directory

THE ARIZONA MEDICAL ASSOCIATION, INC.
Organized 1892 211 U-R Building
4533 N. Scottsdale Road, Scottsdale, Arizona

OFFICERS AND DIRECTORS

Leslie B. Smith, M.D. ..... President
1130 E. McDowell Rd., Phoenix, Arizona
Clarence E. Yount, Jr., M.D. ..... President-elect
P. O. Box 1626, Prescott, Arizona
William B. Steen, M.D. ..... Vice President
116 N. Tucson Blvd., Tucson, Arizona
Paul L. Singer, M.D. ..... Secretary
1313 N. Second Street, Phoenix, Arizona
Arthur V. Dudley, Jr., M.D. ..... Treasurer
1524 N. Norton Ave., Tucson, Arizona
Paul B. Jarrett, M.D. ..... Speaker of the House
2021 N. Central Ave., Phoenix, Arizona
Lindsay E. Beaton, M.D. ..... Delegate to AMA
1650 N. Campbell Ave., Tucson, Arizona
Jesse D. Hamer, M.D. ..... Delegate to AMA
910 Professional Bldg., Phoenix, Arizona
Orin J. Farness, M.D. ..... Alternate Delegate to AMA
1535 N. Tucson Blvd., Tucson, Arizona
Dermont W. Melick, M.D. ..... Alternate Delegate to AMA
15 East Monroe Street, Phoenix, Arizona
Darwin W. Neubauer, M.D. ..... Editor-in-Chief
720 N. Country Club Rd., Tucson, Arizona

DISTRICT DIRECTORS

Clyde Barker, Jr., M.D. ..... Central District
710 Professional Bldg., Phoenix, Arizona
W. Albert Brewer, M.D. ..... Central District
1116 Professional Bldg., Phoenix, Arizona
John A. Eisenbeiss, M.D. ..... Central District
926 E. McDowell Rd., Phoenix, Arizona
Wallace A. Reed, M.D. ..... Central District
2021 N. Central Ave., Phoenix, Arizona
Noel G. Smith, M.D. ..... Central District
3614 N. 15th Ave., Phoenix, Arizona
Leo L. Tuveson, M.D. ..... Central District
550 W. Thomas Rd., Phoenix, Arizona
A. H. Dysterheft, M.D. ..... Northeastern District
McNary Hospital, McNary, Arizona
J. P. McNally, M.D. ..... Northwestern District
434 West Gurley Street, Prescott, Arizona
D. G. Moody, M.D. ..... Southeastern District
101 Terrace Street, Nogales, Arizona
Earl R. Baldwin, M.D. ..... Southern District
116 N. Tucson Blvd., Tucson, Arizona
James O'Hare, M.D. ..... Southern District
1613 N. Tucson Blvd., Tucson, Arizona
John R. Schwartzmann, M.D. ..... Southern District
2415 E. Adams Street, Tucson, Arizona
James T. O'Neil, M.D. ..... Southwestern District
113 West 2nd Street, Casa Grande, Arizona

DIRECTOR AT LARGE

Lindsay E. Beaton, M.D. ..... Past President
1650 N. Campbell Ave., Tucson, Arizona

COUNTY MEDICAL SOCIETY OFFICERS FOR 1961

APACHE: Jerry T. Clifton, M.D., President, Box 758, Show Low, Arizona; Arnold H. Dysterheft, M.D., Secretary, McNary Hospital, McNary, Arizona.

COCHISE: Benjamin G. Rothman, M.D., President, P. O. Box 1192, Bisbee, Arizona; William W. McKinley, Jr., M.D., Secretary, P. O. Box 1192, Bisbee, Arizona.

COCONINO: James B. Wenzel, M.D., President, 1303 North Beaver St., Flagstaff, Arizona; John R. Caskey, M.D., Secretary, 2725 E. Lakin Drive, Flagstaff, Arizona.

GILA: Bert E. Lambrecht, M.D., President, Box 1837, Miami, Arizona; Bernard J. Collopy, M.D., Secretary, Box 342, Miami, Arizona.

GRAHAM: Frederick W. Knight, M.D., President, 618 Central Avenue, Safford, Arizona; Bruce N. Curtis, M.D., Secretary, 618 Central Avenue, Safford, Arizona.

GREENLEE: Charles B. Daniell, M.D., President, Morenci Hospital, Morenci, Arizona; Leopoldo Dulawa, M.D., Secretary, Morenci, Hospital, Morenci, Arizona.

MARICOPA: Robert A. Price, M.D., President, 3602 N. 15th Avenue, Phoenix, Arizona; Howard C. Lawrence, M.D., Secretary, 2021 North Central Avenue, Phoenix, Arizona. Society Office: 2025 North Central Ave., Phoenix, Arizona.

MOHAVE: Walter Brazie, M.D., President, Masonic Building, Kingman, Arizona; John J. Standifer, M.D., Secretary, 412 East Oak Street, Kingman, Arizona.

NAVAJO: Harry S. Beckwith, M.D., President, 101 S. Williamson Street, Winslow, Arizona; Donald F. DeMarse, M.D., Secretary, Box 397, Holbrook, Arizona.

PIMA: Clarence L. Robbins, M.D., President, 1608 North Norton Avenue, Tucson, Arizona; William L. Goodin, M.D., Secretary, 2430 E. Sixth Street, Tucson, Arizona. Society Office: 57 East Jackson Street, Tucson, Arizona.

PINAL: James B. Tucker, M.D., President, 703 N. Olive Street, Casa Brande, Arizona; James H. Boyd, M.D., Secretary, 291 West Wilson Avenue, Coolidge, Arizona.

SANTA CRUZ: Delmer R. Mock, M.D., President, 309 Duquesne Avenue, Patagonia, Arizona; Charles S. Smith, M.D., Secretary, Gebler Building, Nogales, Arizona.

YAVAPAI: Richard G. Hardenbrook, M.D., President, 316 Grove Avenue, Prescott, Arizona; William R. Shepard, M.D., Secretary, 506 West Gurley Street, Prescott, Arizona.

YUMA: William J. Nelson, M.D., President, 450 West 23rd Street, Yuma, Arizona; Abe I. Podolsky, M.D., Secretary, 1601 Fifth Avenue, Yuma, Arizona.

COMMITTEES – 1960-61

NOTE: The President, President-elect and Secretary are ex-officio members of all Committees unless otherwise specified.

ARTICLES OF INCORPORATION & BY-LAWS COMMITTEE: Paul B. Jarrett, M.D., Chairman (Phoenix); Paul L. Singer, M.D. (Phoenix); Lorel A. Stapley, M.D. (Phoenix).

BENEVOLENT & LOAN FUND COMMITTEE: Preston T. Brown, M.D., Chairman (Phoenix); Donald K. Buffmire, M.D. (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Carl H. Gans, M.D. (Morenci); Lorel A. Stapley, M.D. (Phoenix).

CENTRAL OFFICE ADVISORY COMMITTEE: Lorel A. Stapley, M.D., Chairman (Phoenix); Arthur V. Dudley, Jr., M.D. (Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

EXECUTIVE COMMITTEE: Lindsay E. Beaton, M.D., Chairman (Tucson); Arthur V. Dudley, Jr., M.D. (Tucson); Leslie B. Smith, M.D. (Phoenix); Lorel A. Stapley, M.D. (Phoenix); Clarence E. Yount, Jr., M.D. (Prescott).

GRIEVANCE COMMITTEE: Dermont W. Melick, M.D., Chairman (Phoenix); Walter Brazie, M.D. (Kingman); Carlos C. Craig, M.D. (Phoenix); Robert E. Hastings, M.D. (Tucson); Oscar W. Thoeny, M.D. (Phoenix); Hugh C. Thompson, M.D. (Tucson); Florence H. B. Yount, M.D. (Prescott).

HISTORY & OBITUARIES COMMITTEE: Howell S. Randolph, M.D., Historian (Phoenix); John W. Kennedy, M.D. (Phoenix); Darwin W. Neubauer, M.D. (Tucson); Abe I. Podolsky, M.D. (Yuma); Lorel A. Stapley, M.D. (Phoenix).

INDUSTRIAL RELATIONS COMMITTEE: Frederick W. Knight, M.D., Chairman (Safford); John F. Currin, M.D. (Flagstaff); Juan E. Fonseca, M.D. (Tucson); Kenneth G. Rew, M.D. (Phoenix); John H. Ricker, M.D. (Phoenix); Robert W. Weber, M.D. (Tucson).

LEGISLATIVE COMMITTEE: Jesse D. Hamer, M.D., Chairman (Phoenix); John S. Carlson, M.D. (Nogales); Paul B. Jarrett, M.D. (Phoenix); W. Shaw McDaniel, M.D. (Phoenix); Reed D. Shupe, M.D. (Phoenix); Lavern D. Sprague, M.D. (Tucson); William B. Steen, M.D. (Tucson); George C. Truman, M.D. (Mesa); MacDonald Wood, M.D. (Phoenix).

MEDICAL ECONOMICS COMMITTEE: Ian M. Chesser, M.D., Chairman (Tucson); John A. Eisenbeiss, M.D. (Phoenix); Benjamin Herzberg, M.D. (Phoenix); James E. O'Hare, M.D. (Tucson); Donald A. Polson, M.D. (Phoenix); Paul L. Singer, M.D. (Phoenix).

MEDICAL SCHOOL COMMITTEE: Lindsay E. Beaton, M.D., Chairman (Tucson); W. Albert Brewer, M.D. (Phoenix); W. R. Manning, M.D. (Tucson); Dermont W. Melick, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

MEDICO-LEGAL COMMITTEE: William B. McGrath, M.D., Chairman (Phoenix); Jesse D. Hamer, M.D. (Phoenix); Robert E. Hastings, M.D. (Tucson); Louis Hirsch, M.D. (Tucson); Wallace A. Reed, M.D. (Phoenix); Maurice Rosenthal, M.D. (Phoenix).

PROFESSIONAL COMMITTEE: John R. Schwartzman, M.D., Chairman (Tucson); Otto L. Bendheim, M.D., Sub-committee on Mental Diseases (Phoenix); Orin J. Farness, M.D., Sub-committee on General Medicine (Tucson); Ray Fife, M.D., Sub-committee on Crippled Children and Rehabilitation (Phoenix); Samuel J. Grauman, M.D., Sub-committee on Aging (Tucson); Richard B. Johns, M.D., Sub-committee on Maternal and Child Health (Phoenix); Howard W. Kimball, M.D., Sub-committee on Civil Defense and Safety (Phoenix); Robert B. Leonard, M.D., Sub-committee on Cancer and Medical Education (Phoenix); Blair W. Saylor, M.D., Sub-committee on Hospitals and Nursing (Tucson); Paul J. Slosser, M.D., Sub-committee on Venereal Disease and Medical Education (Yuma); Thomas H. Taber, Jr., M.D., Sub-committee on Rehabilitation and Industrial Health (Phoenix); Lowell C. Wormley, M.D., Sub-committee on General Medicine (Phoenix).

PROFESSIONAL LIAISON COMMITTEE: Noel G. Smith, M.D., Chairman (Phoenix); Ernest A. Born, M.D., Sub-committee on Woman's Auxiliary (Prescott); Max Costin, M.D., Sub-committee on Nurses (Tucson); Robert H. Cummings, M.D., Sub-committee on Allied Professions (Phoenix); Ben P. Frissell, M.D., Sub-committee on Public Health and Schools (Phoenix); William G. Payne, M.D., Sub-committee on Governmental Medical Staffs (Tempe); Lavern D. Sprague, M.D., Sub-committee on Association of Physicians and Surgeons (Tucson); Albert G. Wagner, M.D., Sub-committee on Careers and Arizona AMEF (Phoenix); Roy O. Young, M.D., (Flagstaff).

PUBLIC RELATIONS COMMITTEE: Roy O. Young, M.D., Chairman (Flagstaff); Howard W. Finke, M.D. (Superior); Walter T. Hileman, M.D. (Tucson); Paul B. Jarrett, M.D. (Phoenix); Clarence H. Kuhlman, M.D. (Tucson); W. R. Manning, M.D. (Tucson); Deward G. Moody, M.D. (Nogales); Roland F. Schoen, M.D. (Casa Grande); Leo L. Tuveson, M.D. (Phoenix).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Chairman (Tucson); R. Lee Foster, M.D. (Phoenix); John R. Green, M.D. (Phoenix); Clarence L. Robbins, M.D. (Tucson).

SCIENTIFIC ASSEMBLY COMMITTEE: Leslie B. Smith, M.D., Chairman (Phoenix); James E. Brady, M.D. (Tucson); Richard E. H. Duisberg, M.D. (Phoenix); Richard O. Flynn, M.D. (Tempe); Fred L. Goff, M.D. (Douglas); David C. James, M.D. (Phoenix); Richard B. Johns, M.D. (Phoenix); William H. Lyle, M.D. (Yuma); Darwin W. Neubauer, M.D. (Tucson); Walter M. O'Brien, M.D. (Globe); Roland F. Schoen, M.D. (Casa Grande); John R. Schwartzmann, M.D. (Tucson); Clarence E. Yount, Jr., M.D. (Prescott).

OFFICERS OF THE AUXILIARY TO THE ARIZONA MEDICAL ASSOCIATION, 1960-61

President ..... Mrs. Robert H. Cummings
5830 E. Arcadia Lane, Phoenix
President-Elect ..... Mrs. Ian Chesser
414 N. Country Club, Tucson
1st Vice-President ..... Mrs. Frederick Knight
618 Central Avenue, Safford
2nd Vice-President ..... Mrs. John Currin
110 W. Birch Avenue, Flagstaff
Treasurer ..... Mrs. Herbert D. Welsh
Rts. 8, Box 66W, Tucson
Recording Secretary ..... Mrs. George Leih
4536 N. 9th Avenue, Phoenix
Corresponding Secretary ..... Mrs. Clare W. Johnson
318 W. Lawrence Rd., Phoenix
Director (1 year) ..... Mrs. Hiram Cochran
35 Camino Espanol, Tucson
Director (1 year) ..... Mrs. Theodore Harper
175 South Third Street, Globe
Director (2 years) ..... Mrs. Robert S. Keller
626 Sixth Ave., Safford

STATE COMMITTEE CHAIRMEN, 1960-61

Bulletin ..... Mrs. Paul Slosser
701 8th Avenue, Yuma
Chaplain ..... Mrs. Paul Jarrett
501 E. Pasadena, Phoenix
Civil Defense ..... Mrs. Stanford Farnsworth
4125 N. Jokake Drive, Phoenix
Community Service ..... Mrs. Thomas Rowley
114 S. Miller, Mesa
Finance ..... Mrs. Robert Gullen
5003 N. 22nd Street, Phoenix
Historian ..... Mrs. Melvin Phillips
829 Flora Street, Prescott
Legislation ..... Mrs. Everett Dean
310 W. State, Phoenix
Medical Education Fund ..... Mrs. H. R. Estes
6911 Soyaluna Place, Tucson
Mental Health ..... Mrs. L. L. Stolfa
204 E. Pomona, Phoenix
Newsletter ..... Mrs. John T. Clymer
201 W. Flynn Lane, Phoenix
Nominating ..... Mrs. Hiram Cochran
35 Camino Espanol, Tucson
Health Careers ..... Mrs. Howard Purcell
100 E. Ocotillo, Phoenix
Parliamentarian ..... Mrs. John Eisenbeiss
99 W. Northview, Phoenix
Publicity ..... Mrs. Roy Young
Box 1058, Flagstaff
Revisions ..... Mrs. Jesse Hamer
1819 N. 11th Avenue, Phoenix
Safety ..... Mrs. Max Costin
2648 E. 4th Street, Tucson
Student Nurse Loan Fund ..... Mrs. Juan Fonseca
2505 Indian Ridge, Tucson

COUNTY PRESIDENTS AND OFFICERS, 1960-61

COCONINO COUNTY

President ..... Mrs. John Kahle
2412 N. Talkington, Flagstaff
Vice-President ..... Mrs. James Wenzel
2143 N. Navajo Dr., Flagstaff
Secretary ..... Mrs. John Caskey
2725 E. Lakin, Flagstaff
Treasurer ..... Mrs. Garland Wood
Flagstaff Hospital, Flagstaff

GILA COUNTY

President ..... Mrs. B. B. Lambrecht
Box 1837, Miami
Vice-President ..... Mrs. W. C. Fowkes
1207 Miami, Arizona
Secretary-Treasurer ..... Mrs. W. M. O'Brien
1177 E. Monroe, Globe

MARICOPA COUNTY

President ..... Mrs. Shaw McDaniel
114 E. Tuckey Lane, Phoenix
President-Elect ..... Mrs. Richard Johns
508 W. Rose Lane, Phoenix
1st Vice-President ..... Mrs. Robert Gullen
5003 N. 22nd St., Phoenix
Recording Secretary ..... Mrs. John E. Schramel
550 W. Thomas, Phoenix
Treasurer ..... Mrs. Joe Bonnet
450 E. Ocotillo Rd., Phoenix

PIMA COUNTY

President ..... Mrs. F. Landeen
4747 E. Ft. Lowell
President-Elect ..... Mrs. F. Hirsh
5817 E. Alpine
1st Vice-President ..... Mrs. H. Welsh
3337 E. Terra Alta
2nd Vice-President ..... Mrs. H. Estes
6911 Soyaluna
Recording Secretary ..... Mrs. E. Baldwin
3320 N. Martin
Corresponding Secretary ..... Mrs. P. Dev
4112 E. Fifth
Treasurer ..... Mrs. S. Shapiro
5433 E. Eighth
Civil Defense ..... Mrs. W. Havemeyer
5305 Peppertree Circle

YAVAPAI COUNTY

President ..... Mrs. James C. Soderstrom
Box 82, Whipple
Vice-President ..... Mrs. Donald W. Merkle
U. S. Veterans' Hospital, Whipple
Secretary ..... Mrs. William R. Shepard
1106 Dixon Drive, Prescott
Treasurer ..... Mrs. Melvin W. Phillips
829 Flora Avenue, Prescott

YUMA COUNTY

President ..... Mrs. William J. Nelson, Jr.
2808 Vista Lane, Yuma
Vice-President ..... Mrs. William H. Lyle
1400 16th Place, Yuma
Secretary ..... Mrs. Ralph T. Irwin
728 6th Avenue, Yuma
Treasurer ..... Mrs. Herbert C. Kling
1335 8th Avenue, Yuma

SOCIEDAD MEDICA DE ESTADOS UNIDAS DE NORTEAMERICA Y MEXICO

MEDICAL SOCIETY OF THE UNITED STATES & MEXICO

President ..... Dr. Ignacio Chavez
Edificio Profesional, Pavo No. 112, Guadalajara, Jalisco, Mex.
President-Elect ..... Dr. Juan E. Fonseca
2409 E. Adams, Tucson, Arizona
Vice-President ..... Dr. E. Contreras Reyna
Marsella 125 Norte, Guadalajara, Jalisco, Mexico
Secretario ..... Dr. Fausto Zeron Medina
Guadalajara, Jalisco, Mexico
Secretary ..... Dr. M. A. Carreras
130 South Scott, Tucson, Arizona
Executive Secretary ..... Byron Browder
Tucson, Arizona
Secretario Ejecutivo ..... Alfredo E. Patron
Mazatlan, Sinoloa, Mexico
Treasurer ..... Dr. Robert E. Hastings
1014 N. Country Club, Tucson, Arizona
Tesorero ..... Dr. E. Gonzalez Murguia
Juarez 673, Guadalajara, Jalisco, Mexico

COORDINATING COMMITTEE

COMITE COORDINATOR

Dr. Harry E. Thompson

Dr. Hector Gonzalez Guevara

Dr. Ignacio Chavez

Dr. W. R. Manning

Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

For the build-up in convalescence

ANNOUNCING

FILMTAB® SURBEX-T™

Therapeutic dosage of B-Complex plus 500 mg. of Vitamin C

Unsurpassed stability. As coatings are applied without water, deterioration due to moisture is virtually eliminated. Stability is enhanced; potency is protected. **Easier, more pleasant to take.** SURBEX-T tablets are up to 30% smaller; have a pleasant taste; and are non-caloric. Vitamin odor and aftertaste are eliminated.

Each Filmtab SURBEX-T represents:

Thiamine Mononitrate (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	4 mcg.
Calcium Pantothenate (as calcium pantothenate racemic)	20 mg.
Ascorbic Acid (as sodium ascorbate)	500 mg.
Desiccated Liver, N. F.	75 mg.
Liver Fraction 2, N. F.	75 mg.

Supplied in bottles of 100 and 1000

VITAMINS BY ABBOTT

Filmtab coatings protect this full range of Abbott nutritional supplements:

SUR-BEX® WITH C. Smaller dosages of the essential B-Complex and C. Table bottles of 60. Also in bottles of 100, 500 and 1000.

DAYTEENS™ To help insure optimal nutrition in growing teenagers. Table bottles of 100, bottles of 250, 1000.

Potent maintenance formulas —ideal for those who are "nutritionally run-down"

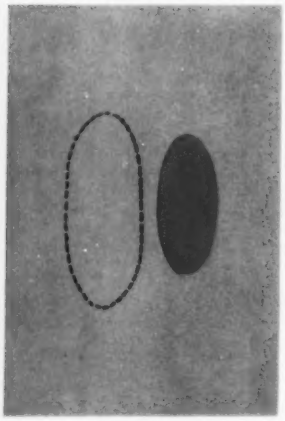
DAYALETS® Table bottles of 100. Bottles of 50, 250, 1000.

DAYALETS-M® Apothecary bottles of 100 and 250. Also in bottles of 1000.

Therapeutic formulas for more severe deficiencies—illness, infection, etc.

OPTILETS® & OPTILETS-M® Table bottles of 30 and 100. Bottles of 1000.

Filmtab® Coating Advantages in a Nutshell

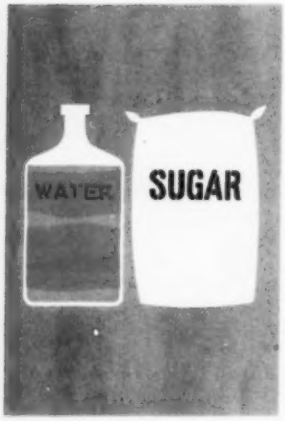


Tablets are easier to swallow, up to 30% smaller.

Vitamin after-taste and odor are eliminated.

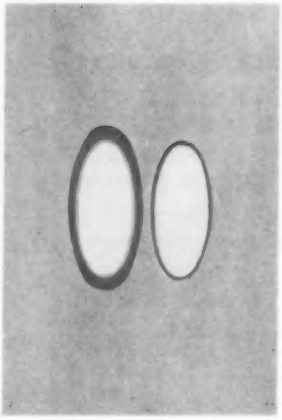
Tablets are pleasant tasting, non-caloric, come in a rainbow of cheerful colors.

Breakage and cracking are less likely. (Sugar coatings are crystalline, and more brittle.)



In contrast with sugar coatings, no water is used in manufacture.

This eliminates the need of protective subseals, and chances of moisture seepage through imperfections.



Absorption is speeded as sugar's bulk and subseals are eliminated.

Vitamins are readily available at proximal receptor sites.

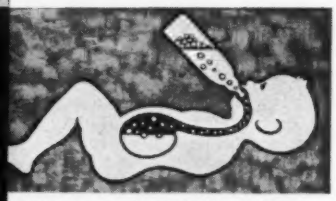
NET RESULT: Potency is assured for a longer time. The patient gets what he pays for—and what you prescribe.

ABBOTT

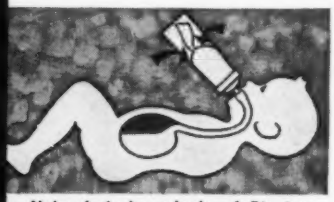
The revolutionary discovery that simulates breast feeding.....

***Natural nursing action nipple** induces even sucking that dramatically lessens outside air swallowing and makes baby exercise his jaws. Designed to avert tongue-thrusting and other malocclusions not inhibited by conventional nipples.*

Because the disposable bottle is pre-sterilized, it eliminates the possibility of contamination through improperly sterilized bottles.



***With conventional bottle** air has to get inside bottle for milk to come out. Nipple often collapses and baby has to suck harder, so more air gets into his stomach. Both overfeeding and underfeeding can ensue, along with the aerophagia and flatulence which can produce colic, spitting up, and after feeding distress.*



***Natural design nipple** of Playtex Nurser assures even flow. Its pliable inner bottle contracts with atmospheric pressure as formula is consumed. Baby takes more nourishing formula, less swallowed air to cause discomforting spitting up and colic.*

Arizona Medical Association Reports

Arizona Medicine

May, 1961 Vol. 18, No. 5

Board of Directors Meeting February 12, 1961 Minutes

The Chairman opened discussion relating to the Arizona State Tuberculosis Sanatorium calling attention to those in attendance that much time had been already devoted to this subject at the meeting of the Board held December 18, 1960; accordingly, he asks that each speaking to the question be brief and to the point.

In attendance, representing doctors of the Pima County area, was William G. Ure, M.D. (Tucson), Doctors James E. O'Hare and Orin J. Farness (both of Tucson), whose presence had been anticipated, did not appear; those representing the Maricopa County area included Doctors Derrill B. Manley, Ben P. Frissell and Fred J. Payne (Chief of the Bureau of Preventive Disease Control of the State Health Department, substituting for Doctor Stanford F. Farnsworth, Director of the Maricopa County Health Department).

The Chairman presented and read: (a) resolution adopted by the Pima County Medical Society January 10, 1961 relating to the subject; (b) letter of James E. O'Hare, M.D., of Tucson expressing his views in the matter; and (c) resolution pertaining adopted by the Maricopa County Medical Society February 6, 1961.

Doctor Ure first spoke to the question presenting and reading a prepared statement thereon, which was ordered received and made a part of the record.

Doctor Payne next spoke to the question. He reviewed statistics relating to the experience in both Pima and Maricopa Counties and filed a prepared statement thereon, which was likewise ordered received and made a part of this record.

Next to speak on the subject was Doctor Frissell, who presented and read a prepared brief thereon, which was ordered received and likewise made a part of the record.

Doctor Manley then spoke to the question, distributing a prepared statement on the case for pediatric tuberculosis beds which he reviewed, and this was ordered received and made a part of the record.

The Chairman then declared the meeting open to questions. He appealed to those wishing to speak to confine their questions to "need" for a tuberculosis sanatorium rather than entering into the matter of operational detail.

It was moved and seconded that we reaffirm the motion passed at the last meeting.

It was moved and seconded that the motion

on the floor be amended to read: that this Board of Directors reaffirms the resolution as stated in our last meeting, recommending that its site be approximated to the medical school site (to be) recommended by the Arizona Medical School Study. Upon call of the question and vote, the Chairman declared the motion lost.

On call of the question and vote the Chairman declared the initial motion on the floor carried, Doctors Dudley and Hileman voting in the negative.

EXECUTIVE COMMITTEE REPORT

Lindsay E. Beaton, M.D., President, and Chairman of the Executive Committee of the Board of Directors, reported the following actions taken by said Committee at a meeting held February 11, 1961:

Group Life Insurance Program

DR. BEATON: The Executive Committee, in meeting yesterday, undertook many items of business; one of them was the proposal from the California-Western States Life Insurance Company, whose representative, Mr. George Littlefield, is present today. In brief, this proposal is to offer life insurance to all members of the Association under the age of 59 in amounts of $10,000.00, these members to be active on the job, the insurance to be given without examination; for members from 60 to 80, on questioning or examination at the applicant's expense, they also could be insured. This is term insurance, the premiums will increase approximately in 5 per cent increments above the age of 60. At the age of 60 there is a decrease in the amount of coverage by exactly 5 per cent per year. In order for this to be written by California-Western States it will be necessary for fifty per cent of those under the age of 60 to apply. There is no possibility of the termination of this insurance unless the Association sponsors another program without permission of the underwriter. The last item about this insurance is that it also provides the possibility of obtaining $2500 for your wife and $2500 for each dependent child under the age of 19. This in essence is the proposal; the Executive Committee recommends its acceptance, which merely means that Mr. Littlefield's company would have the right to go out and solicit this business from the members of our Association. He assures me personally that in other situations of this sort, there has been no difficulty about getting fifty per cent of those under 60. We recommend its acceptance and I will move its acceptance, and we've asked Mr. Littlefield to be present to answer any technical questions you may have about this program.

DR. POLSON: I second the motion. Furthermore, I was one of the two members of the Medical Economics Committee that met to consider this. I checked it out since and I found that it's a very good proposal; the rates are good, the whole program is very sound.

MR. LITTLEFIELD SUBMITTED TO QUESTIONING.

On call of the question to the motion on the floor and vote, the Chairman declared the motion carried.

DR. BEATON: The Executive Committee has also reviewed a proposal from the National Casualty Company of Detroit asking that it be allowed to solicit the membership for selling of insurance for the provision of additional coverage on our existing policies against accidental death, providing for total disability in cases of certain dismemberments and other forms of mayhem. The Executive Committee recommends and moves that the National Casualty Company of Detroit be allowed to solicit the membership for the sale of this additional coverage.

Mr. Littlefield advised that this additional coverage is not to be offered to the membership indiscriminately in instances where known serious disability exists.

Mr. Littlefield further stated that the National Casualty Company of Detroit is now in position to increase the amount of disability limit from $500 to $600. With the two contracts now in existence this will mean that income can be insured up to $800 per month. The company reserves the right to refuse such additional coverage when an insured has in effect policies covering income in excess of $1500 per month. This offer will go forth by letter announcement in order that the insured may be aware of the extension of the amount of disability limit to $500.

On call of the question and vote the National Casualty Company of Detroit is allowed to solicit the membership for this additional coverage.

Council Action Rescinded

DR. BEATON: Our first item of business was to discuss, and I hereby move, the Council action of February 15, 1953 be rescinded; this action required a Board of Directors meeting in mid-January; the reason to rescind this is the

present setup of December and February meetings of the Board of Directors which better meets our needs with regard to considering and influencing legislation. I therefore move that this previous Council action be rescinded.

Which motion was duly seconded and carried.

Secretary

DR. BEATON: It is with regret that I must announce to you that Doctor Lorel Stapley has submitted a statement to the effect that his health will preclude his being available for service as Secretary any longer, but he did ask that, if possible, he have the privilege of completing his term as Secretary; as President, I have written him saying that we did regret his decision, that we would respect it in view of what his doctor had written us and that, if at all possible, we would grant him this privilege of completing his term. So no resignation, therefore, is submitted to us and no action required. I'd like the Board to know that Doctor Stapley will not be able to serve again next year and that this is the reason. Doctor Smith, as you will remember, has, at your direction, assumed Doctor Stapley's duties as an Acting Secretary and he says that he will be able to carry on in Doctor Stapley's stead until the next election. This is very generous of Doctor Smith as it puts an extra load on him at a time when he is harried, I know, but this is the situation. This is just for your information and requires no action.

AMA Delegates

DR. BEATON: Thirdly, the American Medical Association has informed us that since our official membership now exceeds 1000, a second Delegate to the House of Delegates of the AMA is to be appointed. This, presumably, will be sent to the Nominating Committee for its action and nominees will be presented to the House of Delegates.

Two matters have come up in this regard. I would like to call your attention thereto, and would like to have your approval of the action taken by the Executive Committee in disposing of them. The first is, that under the terms of the By-Laws as now written, Alternate Delegates, unless they be members of the House of Delegates or Officers of the Association in some other capacity, are not available for nomination as Delegate. The reason for this is that our By-Laws provide that only members of the House of Delegates, that is to say, Delegates or Officers – members of this Board – can be elected to office, so the Delegate being in office, the Alternate cannot be elected as a Delegate to AMA; that is, unless he is appointed as a Delegate to our own House. The possibility arises that this should be amended, perhaps to make the Alternate Delegates officers, then they will attend Board of Directors meetings and would thereby be available, as replacements, for Delegates. There certainly would be an advantage to this; we think that probably our AMA Alternate Delegates should go to AMA meetings and we think that if they are going to go, they should be up-to-date on what the Association is thinking so they can represent the Association philosophy and belief. At the present time our Alternate Delegate has not gone to meetings except on a single occasion all this time as Alternate, and he has no way of knowing what we do.

The second thing that comes up, and this really set us back a little bit when we saw it – this year the Southern District, Pima County District, gets an additional Director, and the Central District, Maricopa County, gets one additional director. There are twenty members on the Board. If we are to add one additional Director, Central, and another one from Pima, a new Delegate to AMA and two Alternates, we would then have twenty-five members of our Board of Directors, which would be the maximum allowable under the current Articles.

So you face, then, the possibility of either removing this restriction of twenty-five on your Board of Directors, or changing the formula by which Directors are selected from the different Districts, by redistricting or perhaps by changing the number, which now is that there will be one member for each district and an additional one for each major fraction over 100. These things seem to us like major problems for the future and therefore, on behalf of the Executive Committee, I move that the Board refer this entire matter to the Articles of Incorporation and By-Laws Committee so that it may consider this matter and not for approval at the next House of Delegates at all, because we're in good shape right now; even with the addition, we will still be under twenty-five; but so that sometime before the 1962 meeting some decision may be reached about this, and the Executive Committee, although this is not a part of the motion, does recommend that the Articles of Incorpora-

tion and By-Laws Committee consider a change of formula rather than a change in the Articles, for the reason that a Board of Directors of over twenty-five is rather unwieldly to do very much business. When you begin to get a Board of Directors of fifty, it would probably not serve as well as a Board of Directors of twenty-five. At least, this is our thinking.

The motion duly seconded, was carried.

Administration — Financial

DR. BEATON: In behalf of our Treasurer, the Executive Committee would like to recommend that we change our bookkeeping to a calendar year basis. The main reason for this now is that the way we split on a fiscal year, the annual meeting expenses are paid out in one year and the money for the payment comes in in the next, and our Auditor and our Treasurer believe that a calendar year basis for our bookkeeping would be more efficient.

The motion, duly seconded, was carried.

The Executive Committee has reviewed the financial reports and I move their acceptance. I assure you we're in good shape; we've reviewed these monthly reports just so that the Board will not have to go over this. However, certain things have come up that disturb us. We are exceeding our budget and the whole question of what we're going to do, either about retrenching or having a dues increase, remains to be thrashed out. We are growing out of our quarters and there are no new facilities available in the Central Towers Building. Our staff cannot do the work we are asking of it, and the question of a staff increase is urgent, particularly if Arizona Medicine remains under our aegis, which I think it should, and if the Board of Medical Examiners remains associated with us. There is certainly some necessity of relieving our Executive Secretary, Mr. Carpenter. All of these questions were felt to be too great to be decided yesterday and, therefore, the Executive Commitee has scheduled a special meeting on the 5th of March to discuss these matters and to come up with some specific recommendations on all of these matters before the Board of Directors meeting in April.

With that much preamble I would like merely to move at this time the approval of the financial reports for December, 1960 and January, 1961.

Which motion was duly seconded and carried.

The Executive Secretary was directed that the members of the Board of Directors be apprised of the date and place of the next Executive Committee meeting and invited to attend.

Legislative Committee

DR. BEATON: S.B. 121 dealing with contraceptive advertisements and S.B. 120 amending the Medicine and Surgery Act as pertains to Board membership, certain increases in fees and elimination of the two-year statutory limitation provision relating to refusal, suspension or revocation of license, are both Association-sponsored bills and have been, of course, introduced in the Senate. (Actions ratified)

S.B. 151 and S.B. 152 amending the "Dispensing Opticians" and "Optometrists" Acts, supported by both the Maricopa and Southern Ophthalmology Societies, in an attempt to prohibit advertising of prescription and contact lenses and frames by store chains, were recommended supported. (Board concurs in support of these two measures.)

H.B. 77 providing for date stamping of containers of milk delivered to the ultimate consumer. (Board determines to take no stand.)

H.B. 86 providing for the establishment of a Cancer Advisory Committee. (Board determines to take no stand, pending receipt of further information thereon.)

H.B. 87 involving amendments to the Occupational Diseases Act. (Board determines to support three of the four changes dealing with the medical aspects of the measure, but take no action relating to administration and method of payment for occupational diseases, which is considered not the affair of medicine.)

H.B. 91 establishes a Radiation Advisory Board in the State Health Department to deal with public health in the matter of irradiation. (Inasmuch as printed copies of this bill are not yet available, giving opportunity to review its content, no action taken.)

H.B. 12 and H.B. 124 dealing with narcotics; the first providing severe penalties up to death for pushers; the second measure not yet available for review, though reported originating out of the Governor's Committee, the Professional Committee voted opposition to both bills; likewise, the Arizona Psychiatric Society. The Executive Committee votes to oppose both measures: first, because of incomplete information about them; second, because it thinks narcotic addic-

tion is a medical matter requiring clarification; and thirdly, it believes that definitive legislation can be written only after a conference of all interested experts: medical, legal, police, legislative, etc. This position is not to be interpreted as any desire not to punish sellers of narcotics and adequately to treat and, if possible, rehabilitate the users of narcotics, but rather that it is hasty legislation not yet complete enough to cover the realities of the tremendous volume of today's narcotic traffic. (Board concurs.)

H.B. 48 and H.B. 51 dealing with removal of sales taxes on medicine, foods, etc. This Board, December last, went on record in support of its Auxiliary's activity furthering the elimination of taxes on medicine. (Board determines to approve these measures, pending analysis by counsel.)

A Psychology Bill is proposed to be introduced by Senator Wine of Pima County. It is designed to provide certification and examination of psychologists. It has the approval of the Psychology Departments of both ASU and U. of A., and reviewed by the three Legislative Committees of the Psychiatric Societies in this State, receiving their approval. (Board approves the certification and examination of psychologists as proposed in this measure.)

S.B. 64 providing for the reporting of "Epilepsy" to the State Department of Health and the State Motor Vehicle Division. It is felt that while the end result of this bill is to be applauded in that none fo us want to have chronic epileptics out driving, it is not known whether this measure is the best rule or a really inclusive bill. We were also concerned with people who have transient loss of consciousness from other causes, whether it be diabetes or heart disease, etc.; we doubted that this was the best rule; we had not been consulted on this bill; we knew nothing about similar bills; so it is recommended that no stand be taken on this. (Board concurs.)

H.B. 22 requires doctors of medicine at the State Hospital and serving Governmental Health Departments to be licensed witihn six months following employment. (Board opposes measure.)

A Bill is proposed – we do not know the number as yet – providing for branches of the Children's Colony. Mr. McIntire of the Children's Colony, wants the branches in Tucson and Phoenix. His reasons for wanting to put these Colonies there instead of enlarging the Children's Colony at Randolph are roughly as follows: one, the institutions will be closer to places where most of the children come from; two, they will be close to their families, which may be important in certain cases; three, the employment pool in Randolph and Coolidge is completely drained – he can no longer get the people he needs for staff attendance; four, he has no access to the kind of detailed specialist medical services he needs (pediatricians, psychologists, psychiatrists, eye, ear and nose and throat men, etc.). It is reported that there is a four-year waiting list for admission to the Children's Colony. The Executive Committee approved this bill on the erection of new Children's Colony Branches. (Board concurs.)

Another bill provides for an intermediate institution for delinquent children. (The Board previously acted favorably upon such measure providing the building thereof is situated in or near either Phoenix or Tucson.)

It is also understood the Arizona Podiatry Association is planning to introduce a measure prohibiting fluoroscopic shoe fitting devices. It is recommended the Association support such measure, if introduced. (Board concurs.)

H.B. 73 provides penalties for indecent exposure of the human body. It is recommended disapproved on the grounds, again, that it does not take into account modern psychiatric knowledge about sex offenses. (Board concurs.)

Meetings

DR. BEATON: I should like to report to you next, very briefly, on three meetings that I have had. The first, in company with Doctor Manning, was with the Board of Basic Sciences. The Basic Science examiners are concerned about recent opinions given by the former Attorney General, Wade Church. They have become merely a rubber stamp and anybody who wants to get into the State can get in so far as the Basic Science Board is concerned. At the end of the talk it was felt that the only thing we can do to help is to let our counsel see the opinions they have had and advise them a little bit about where they stand legally and what the next step should be, whether it's going to be necessary to propose legislation, or whether there can be some new interpretations given, etc. And we have, therefore, subject to any disapproval on your part, asked that Mr. Jacobson make himself available to the Basic Science Board, if they should want

his opinion. They have no counsel themselves except for the Attorney General, and he has not been giving opinions that have been useful to them, and these gentlemen, believe me, are all very honest, sincere individuals and want to do a good job. They are not trying to keep the doctors out and I can tell you some hair-raising stories about men who have flunked our Basic Science Board examinations two and three times with marks of 20 and 30 in every subject and the minute this new interpretation was given, they applied and got in — men who took a one-hour examination in pathology, bacteriology and physiology and were given a grade that our Basic Science Board then had to accept as being equivalent to our two- or three-hour examination separately in each one of these subjects.

My second visit was with Mr. Robert Pickrell, the new Attorney General, in company with Mr. Carpenter. We went to see if it would be possible to have the Board of Medical Examiners represented by the same counsel who represents the Arizona Medical Association, thinking that if this could be done, we could have Mr. Jacobson representing the Board of Medical Examiners and there would be a satisfactory liaison and the Board of Medical Examiners would be represented by a man of stature. This was agreed upon and Mr. Pickrell said yes and Mr. Jacobson said yes, but when the statute was checked it was found that anyone who accepted a position of this sort, as Mr. Jacobson would have, would have been obliged to withdraw from any litigations in which the State was a party. In default of this, Mr. Pickrell appointed a young man, a Mr. Charles T. Stevens, who is, I think, doing a good job for the Medical Examiners; the members like him, and the idea is that on any case that requires particular attention, Mr. Jacobson will give Mr. Stevens a hand. May I say that Mr. Pickrell was friendly to us and I have written him a letter thanking him for this, and if ever legislation is required to change this or to make available funds, we asked Mr. Pickrell if he would stand behind us.

My third visit, again in the company of Mr. Carpenter, was to the Governor. He agreed to work more closely with Medicine and stated that he would at all times welcome any suggestions or recommendations it may have.

Benevolent and Loan Fund Committee

The Valley National Bank of Phoenix — Trust Agreement has been ratified and the funds transferred to the account. Individual contributions totaling $219 have been received from the membership, to be credited to this account. Similar contributions will be accumulated and transferred to the Bank semi-annually.

Administration

Letters from the staff expressing appreciation for the Christmas bonuses granted were acknowledged.

Central Office Advisory Committee

It was reported that legal services for the calendar year 1960 amounted to $7800. Counsel has been paid a retainership at the rate of $350 per month and the Treasurer recommends that such retainership be increased monthly to more evenly account for services rendered. The Executive Committee approved the payment of a monthly retainership of $500 effective January 1, 1961; and further authorized the payment of $3,604 to counsel in settlement of its 1960 account. (The Board ratified this action.)

Industrial Relations Committee

The death of Doctor Kenneth G. Rew was reported, creating a vacancy in the membership of the Industrial Relations Committee. The Board concurred in the interim appointment by the President of Doctor Charles P. Neumann of Tucson to serve until the next annual organizational meeting of this body, with the understanding that he will be considered for reappointment for a full term. The Arizona Industrial Commission has likewise appointed Doctor Neumann to serve as a member of its Medical Advisory Board.

Several other matters were discussed and disposed of, including: (a) settlement of the Frazier case; (b) review of the Industrial Relations Committee's notice referring to the wish of the Arizona Industrial Commission that doctors not make statements regarding legal responsibility of a given accident, and pertaining to reporting psychiatric diagnosis in a certain form; (c) appointed a group of ophthalmologists to consult with the Industrial Relations Committee in certain matters concerning eye injury dealing with loss of vision (Doctors Thoeny and Toland, both of Phoenix, and Doctor Burr of Tucson, were the designees); and (d) determined that existing liaison activities were adequate to consider third party relationships in medicine. (Board ratifies actions.)

Miscellaneous

The AMA requests nominations of two or three persons from which they could select a legislative "keyman". Doctor Hamer has previously served in this capacity and is agreeable to relinquishing the assignment; accordingly, Doctor Melick is appointed as first choice and Doctor Dudley as second, he to serve as an assistant. (Board approves.)

The President reports that on request of AMA, he has communicated with the Arizona Congressional Delegation reaffirming the continuing position of this Association in support of the Kerr-Mills legislation relating to care for the aged. Senator Goldwater and Representative Rhodes responded favorably. A special letter was forwarded to Senator Hayden, who is not of like mind and response is being awaited.

Joint complaint of Doctors Ortiz and Greth, both of Phoenix, involving the Pan American Underwriters, referable to professional services rendered bracero farm workers and their inability to receive compensation therefor, has been investigated by the Medical Economics Committee and following investigations it has concluded the complaint to be justifiable. The Committee will be requested to confer with the Valley Produce Growers in an endeavor to obtain its cooperation to insist upon a realistic fee schedule and free choice of physician.

Professional Committee

Clarifies and reaffirms its previous stand on health legislation, assuring that it was not intended to disturb existing necessary teaching programs in operation in county hospitals.

Recommends that a Medical Director be appointed to serve under the new Director of Civil Defense to bring disaster control under medical superintendence. The Executive Committee recommends that the Governor's Committee on Civil Defense be communicated with so recommending, the names of Doctor Darwin W. Neubauer of Tucson and Doctor Howard W. Kimball of Phoenix to be suggested, each having been active in Medical Civil Defense. (Board approves)

Disapproves the solicitation of laboratory work either directly or through the mail. (The Board determined that the membership be informed that the Association frowns on mail solicitation of business by clinical laboratories, especially those that are not headed by qualified clinical pathologists.)

Recommends Board endorsement of the Duval County (Florida) Society's opposition to a ruling of the Joint Commission on Accreditation of Hospitals; i.e. that "only reports of clinical laboratory work done in laboratories supervised by qualified medical pathologists should be accepted for hospital inpatients or outpatients — this should be the original report from the laboratory, properly authenticated, placed on the patient's record"; the Society taking the position that laboratory work attached to the clinical record by any responsible staff officer should be accepted at its face value. It is the feeling that the Joint Commission should be informed of this recommendation and told to stop the trend toward removal of authority for the patient from individual doctors of medicine. The Executive Committee joins in advising such endorsement. (Board concurs.)

Recommended that the Association support AMA in its ECFMG ruling requiring foreign medical school graduates to qualify and become certified prior to acceptance for hospital engagement. (Board approves.)

Approves Maricopa County Society's policy dealing with community development programs, including construction and administration of hospitals, which can be accomplished through various approaches such as: (a) creation of hospital districts under community sponsorship; (b) creation of non-profit corporations; and (c) proprietary enterprises operating under the free enterprises system; provided that all these new facilities meet the ethical and professional standards established in the existing accredited hospitals in the community. The Executive Committee believes this a proper statement, but it wishes to recommend that before it is accepted as an official statement of the Association, a change be inserted to indicate that while proprietary hospitals are perfectly ethical and proper, and at the present time in medicine may be necessary to meet certain needs in certain places, that they are definitely a third choice and that the other two forms of hospitals, that is, district hospitals and non-profit hospitals, are preferable and the community should be encouraged to provide the first two for their sick patients rather than to rely on proprietary hospitals. (It was so moved and ratified by the Board.)

Recommends that advertising in *Arizona Medicine* and exhibiting during the annual meeting the product "Enzylac" be permitted provided that such advertisements and exhibits be screened in advance to assure that all false claims are deleted. (Board concurs.)

Reports that there appears to be no need for the development of a master plan for mental health as suggested by the Tucson Community Council. (Board concurs.)

Recognizes the need for better reporting of contagious diseases, suggesting that possibly the State Health Department might effect a better system to accomplish this objective. (Board concurs.)

Blair W. Saylor, M.D. resigns from membership on the Professional Committee. (Board accepts resignation.)

Professional Liaison Committee

Seeks authority to send a delegate to the 8th National Conference of Physicians and Schools. Not having opportunity to review the program to assure special interest to Arizona, and with limited resources, unless such program is received prior to the next meeting of the Executive Committee, it is recommended that with no program and no money, there be no delegate. (Board concurs.)

Public Relations Committee

Report that inasmuch as it has not been possible to develop a realistic public relations program, no further funds appear indicated at this time.

It was determined not to participate in the Arizona Press Club Awards Program, inasmuch as there is no longer opportunity of this Association designating the category in which it shall participate. (Board concurs.)

Associate with the A. H. Robins Company "Community Service Award", it was determined to accept the nominations of Delbert L. Secrist, M.D. of Tucson (Pima County); Martin G. Fronske, M.D. of Flagstaff (Coconino County); W. Albert Brewer, M.D. of Phoenix (Maricopa County); and Paul B. Jarrett, M.D. of Phoenix (Maricopa County). (Board concurs.)

The President appointed an ad hoc committee comprising James T. O'Neil, M.D. of Casa Grande to serve as Chairman, Deward G. Moody, M.D. of Nogales and Arnold H. Dysterheft, M.D. of McNary to review the background of each of these candidates and submit their recommendation. (Board concurs therein.)

Publishing Committee

The Editor-in-Chief recommends for consideration the publication of an editorial suggesting that this Association either arrange for or sponsor a mid-winter clinical session. Annually, such sessions are now conducted by the Cancer, Heart and College of Surgeons groups, and also one conducted by the Psychiatrists. The Executive Committee approves such suggestion but with skepticism as to how it is to be accomplished. It definitely feels that the Association cannot assume the responsibility of arranging for and conducting such joint endeavor at this time; it certainly would be willing to sponsor such a meeting but does not see how it can assume the obligation either to run it or in any way to finance it. (The Board determined that the Editor-in-Chief shall make inquiries as to the feasibility of such joint endeavor and report back.)

The matter of editorial censorship of articles or portions thereof in *Arizona Medicine* was discussed. The circumstance under which such censorship was recently exerted was reviewed. Further, regarding editorials appearing in the Journal, it was stated that hereafter there shall appear at the bottom of the editorial page indication that the editorials are not the official expression of opinion of the Association.

Attention was directed to the reduction in national advertising which has affected all medical journals with a comparable reduction in reading material.

Scientific Assembly Committee

Recommends staggered membership terms rather than annual appointment as now provided in the By-Laws. Under the present set-up it is difficult for this Committee to develop plans for the "Diamond Jubilee" and schedule advance "Annual Meetings" with a change of Committee membership each year. It has been suggested that the Committee prepare a resolution setting forth an amendment to the By-Laws providing for staggered terms of the membership, and further provide for a regular chairman who will be a co-chairman with the President-elect in the future.

Merck Sharp & Dohme

Merck Sharp & Dohme proposed to underwrite the expense of a speaker at State medical meetings, which is referred to the Scientific Assembly Committee for its future consideration.

Fifty-Year Club Membership

It is recommended that the Board rescind its previous action granting Fifty-Year Club membership to Harry L. Goss, M.D. It is reported that the doctor has not been in active practice for some time; however, if it is desirable, he could be elected to Associate membership. (The Board rescinds its previous action in this regard and elects Doctor Goss to Associate membership, effective January 1, 1961.)

The National Foundation

In accord with request of The National Foundation, Preston T. Brown, M.D. of Phoenix, Carl H. Gans, M.D. of Morenci and Donald K. Buffmire, M.D. of Phoenix are recommended nominees from which group the Foundation will select and appoint a member to serve on its State Scholarship Selection Committee. (Board concurs.)

1960 Medical Directory

Recommends that the Board of Medical Examiners of the State of Arizona be reimbursed to the extent of $36.50 covering one-half the net cost of the publication, jointly, of the 1960 Medical Directory in accordance with previous agreement. (Board concurs.)

CBS Program

The Board directed that the Association write to the Columbia Broadcasting System deploring in the strongest terms its recent television program, especially as it presented the image of the Doctor of Medicine; however, complimenting it on its presentation of the more recent television program presenting a debate between Walter Reuther and Doctor Edward A. Annis.

Medic-Alert Foundation

The Board approved the Medic-Alert Foundation's program, providing various kinds of identification tags for persons with chronic illnesses whose illness may make them at any moment an emergency public charge, provided, however, on communication with AMA it is found it, too, supports such program.

MEDICARE CONTRACT

A new medicare contract, No. DA-49-192-MD-9, has been forwarded for execution by the Contracting Officer, Office for Dependents' Medical Care, Washington, to cover the period March 1, 1961, to and including February 28, 1962. This document has been reviewed by the Executive Secretary, Counsel and the Arizona Blue Shield Medical Service Plan, the Fiscal Administrator, each expressing the view that it appears to be in order and in agreement with the existing contract. The Board directed that it be executed by the designated officers of the Association.

Lorel A. Stapley, M.D., Secretary
By Leslie B. Smith, M.D., President-elect
Acting Secretary

1960-61 ANNUAL REPORT OF THE BENEVOLENT AND LOAN FUND COMMITTEE

The Committee met three times during the year, dates as follows: March 3, 1960; July 28, 1960; and, October 23, 1960.

The most important business carried on during the year was the transfer of the funds and the administration of the funds to a Trust Account No. 120-03068, at the Valley National Bank Head Office.

Applications were received and considered to the number of fifteen (15).

Ten (10) applications were approved for a first year loan of $12,900.

Repeat loans were approved to the value of $3,000.

Thus, there are ten (10) loan recipients now in Medical School, total loans to date represent $15,900.

As you can see from the above enumeration, more applicants desire assistance than can be cared for by the fund.

The fund on hand at the present time is the sum of $33,000, of which only $6,107.62 is available for loans.

It is felt that reserve funds should be retained on account to protect those students who have received loans as underclassmen and to see them through their final years of Medical School.

In view of the apparent need for assistance of this type, it appears desirable to increase the funds available to the Benevolent and Loan Fund Committee if possible.

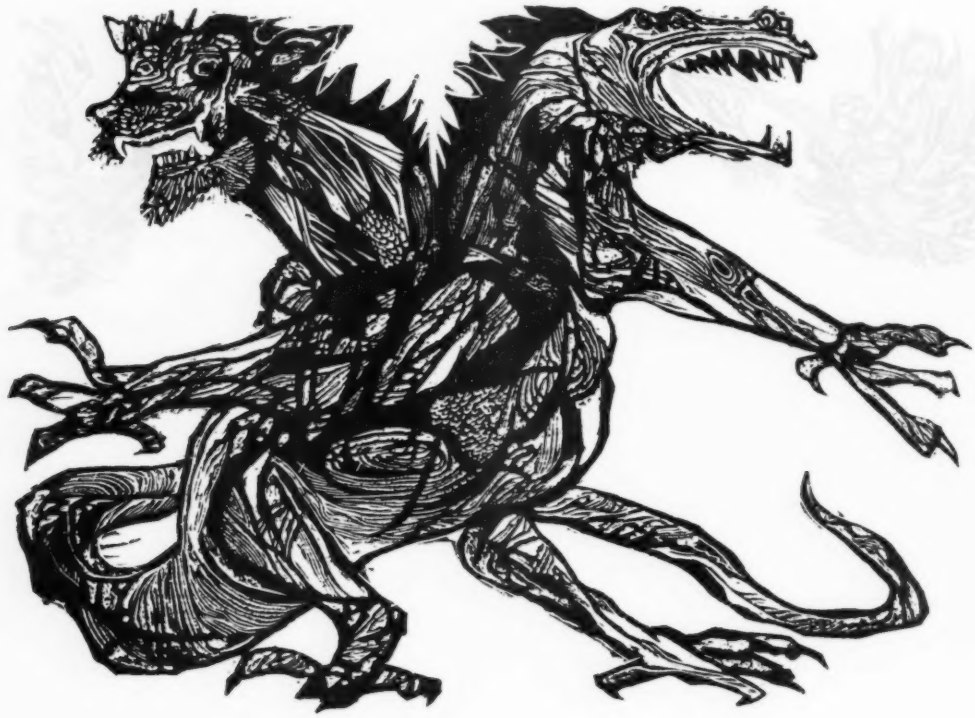
a. By increasing the dues from $5.00 to $10.00 per member each year for the specific purpose of increasing the loan.

b. By diverting some portion of the funds allotted to AMEF to this purpose.

Respectfully submitted,

Preston T. Brown, M.D.
Chairman — Benevolent and Loan Fund Committee

When severe pain accompanies skeletal muscle spasm ease both pain & spasm with Robaxisal



ROBAXIN® with Aspirin

A dual-acting skeletal muscle relaxant-analgesic, combining the clinically proven relaxant action of ROBAXIN with the time-tested pain relieving action of aspirin.

Each **ROBAXISAL** Tablet contains:
ROBAXIN (methocarbamol Robins) 400 mg. Acetylsalicylic acid (5 gr.)..... 325 mg.
U.S. Pat. No. 2770649
Supply: Bottles of 100 and 500 pink-and-white laminated tablets.

Or ROBAXISAL®-PH (ROBAXIN with Phenaphen®) — when anxiety is associated with painful skeletal muscle spasm.

Each **ROBAXISAL-PH** Tablet contains:
ROBAXIN (methocarbamol Robins) 400 mg. Acetylsalicylic acid .....81 mg.
Phenacetin 97 mg. Hyoscyamine sulfate 0.016 mg. Phenobarbital (1/8 gr.) 8.1 mg.
Supply: Bottles of 100 and 500 green-and-white laminated tablets.

Making today's medicines with integrity . . seeking tomorrow's with persistence.

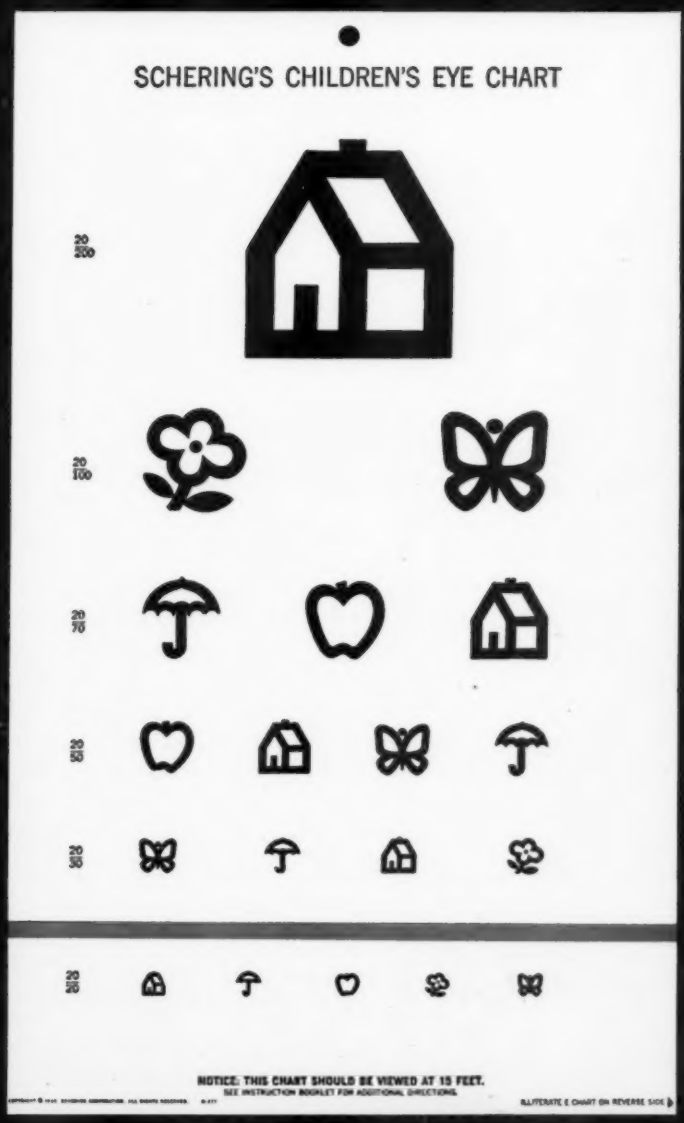
before *they* learn their letters...
you can learn how well they see

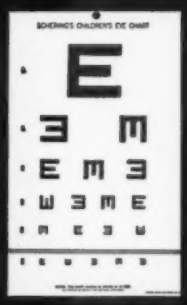
Schering

This chart devised by Schering is part of a simple vision screening test for children over 3 years. Used with the special lens provided, it helps you detect impaired vision, including latent hyperopia (farsightedness), and thus facilitates screening of children in need of referral to an ophthalmologist. ***The complete kit—eye chart, special lens and instructions for use—is available without charge from your Schering representative or on written request.***

Topical eye preparations: METIMYD® Ophthalmic Suspension (prednisolone acetate and sulfacetamide sodium) • Ointment with Neomycin; METRETON® Ophthalmic Suspension (prednisolone acetate and chlorpheniramine gluconate); Sodium SULAMYD® Ophthalmic Solution (sulfacetamide sodium), 30% and 10% • Ophthalmic Ointment, 10%. SCHERING CORPORATION (Dept. F) • BLOOMFIELD, NEW JERSEY

JANUARY, 1961 5-720





Reverse side of Schering Eye Chart

Vol. 18, No. 5 May, 1961

Fluoride Osteosclerosis

James D. Nauman, M.D.

In spite of a thorough knowledge of the dental manifestations of fluorosis on the part of our dental colleagues, many cases of skeletal fluorosis have been overlooked and misdiagnosed by physicians in Arizona. A knowledge of the roentgenological appearances of skeletal fluorosis together with an amateur interest in geology has led Dr. Nauman, after a rather superficial search, to the discovery of a dozen cases of this condition. It is of interest that most of these patients are railroad workers and that their skeletal condition can, in all probability, be traced directly to their water supply. To our knowledge, this factor is not taken into consideration by the railroad company in the hiring of workers. It would be of interest to know whether the factors involved in causing the skeletal changes of fluorosis should not be considered in the medico-legal aspects of workmen's compensation for injury and disability. The advisability of evaluating the water supply of the areas of residence of railroad employees should be considered.

It is hoped to institute, in the near future, a much more thorough search for other cases of this condition, and a more elaborate report is anticipated.

While changes in the dental enamel resulting from the prolonged ingestion of high-fluoride water have been extensively investigated and publicized, the effects on the skeletal system of protracted fluoride exposure have received relatively little attention. In the 1930's roentgenographic studies of residents of regions in Morocco having a high concentration of fluoride in the water supply, and of Danish factory workers industrially exposed to cryolite dust (Na_3AlF_6) suggested a relationship between fluorine toxicity and osteopetrosis (Albers-Schonberg's disease(1,2). Bishop(3) in 1936 and Roholm(4), in his monograph on fluoride intoxication in 1937, showed that the skeletal changes of fluorosis are characteristic, and distinguishable from the "marble bones" of osteopetrosis.

More recent studies(5,6) of population groups in geographic regions with high-fluoride domestic waters have shown that certain individuals consuming water with a fluoride content of 4 parts per million or more for many years will show osseous changes comparable to those described by Roholm. In 1949, a bulletin of the University of Arizona, Department of Agriculture,(7) listed 118 wells in Arizona having a fluoride concentration of 4.0 ppm or greater. Consequently, a relatively high incidence of fluoride osteosclerosis in this state might be anticipated.

The following case is selected for presentation from a group currently being investigated.

A 77-year-old white male, a retired boilermaker, had numerous hospital admissions over a 17 year period for diabetes mellitus, pulmonary

[*] Spanish translation prepared by the author.

tubercuosis, and cardiac decompensation. He had lived in Arizona for 36 years, in a community having a water supply containing 7.8 ppm fluorine. There were no significant findings in the history or physical examination referable to the musculoskeletal system.

Roentgenographically, there was a symmetrical, diffuse increase in osseous density, involving chiefly the axial skeleton, Figure 1(a), with relative sparing of the skull and extremities. Trabeculae were seen to be coarse and blurred, but not obliterated. While the extremities showed no appreciable trabecular alteration, there was perisosteal overgrowth at sites of tendon insertion, particularly about the elbows and knees. There was no expansion or bowing of the affected bones. Ossification of the sacrospinous and sacrotuberous ligaments was present Figure 1(b). The initial radiologic diagnosis was Paget's disease. Hematologic studies on several occasions showed nothing to suggest a blood dyscrasia, and there was no evidence of neoplasm.

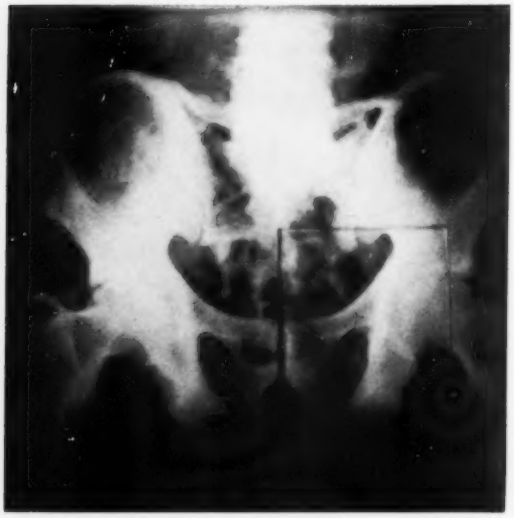


Fig. 1(a) A-P view of the pelvis.

COMMENT: The patient had no symptoms attributable to the osseous changes. Although chronic fluoride intoxication was at one time implicated in the etiology of various gastrointestinal, neurological and cutaneous disturbances, more recent surveys(5,6) have shown no definite systemic effects resulting from ingestion of high-fluoride drinking water other than mottling of dental enamel and structural alteration of bone. The skeletal findings are felt to have no relation to the pulmonary tuberculosis in this case, since sclerosis of this type is not a feature of tuberculous disease.

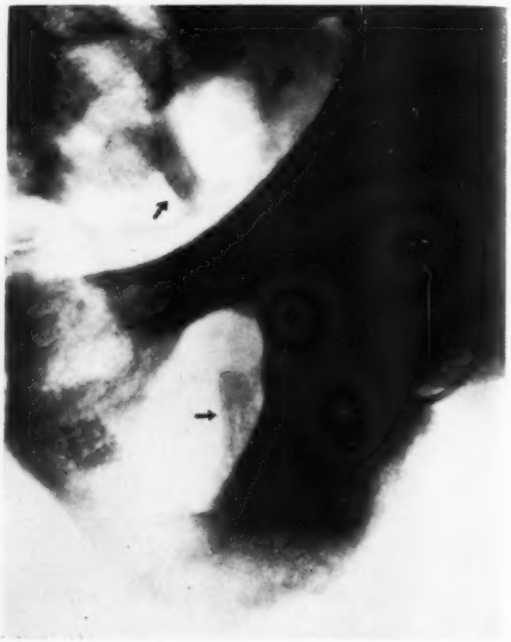


Fig. 1(b) Enlarged view of area outlined on Fig. 1(a). Note ossification of sacro-tuberous and sacro-spinous ligaments. The ilio-lumbar ligaments are ossified, but this is not pathognomonic of fluorosis.

DISCUSSION:

1. Roentgen Features: The pelvis, ribs and vertebral column are the sites of greatest involvement in fluoride osteosclerosis. Trabeculae show roughening and blurring, but remain distinguishable until advanced stages of involvement, when they may fuse together. Affected bones show a diffuse, symmetrical sclerosis without significant alteration of their shape. There is no evidence of bone destruction or tendency toward pathologic fracture. Osteosclerosis usually does not involve the calvarium or extremities, but irregular periosteal thickening at tendon insertions occurs, in some cases resembling large osteophytes. An interesting finding in fluoride osteosclerosis which appears to be pathognomonic is the ossification of the sacrospinous and sacrotuberous ligaments, (Figure 1b). Usually only the distal insertions of these ligaments calcify, but at times the entire ligament is involved.

2: Differential Diagnosis: It has seemed worthwhile to call attention to this entity principally because it may easily be confused with other more familiar causes of osteosclerosis. Among these are osteoblastic metastases, Albers-Schonberg's disease, Paget's disease, and myelosclerosis. Diffuse, symmetrical increase in density of the axial skeleton with thickened, blurred trabeculae and ossification of the pelvic ligaments should suggest the correct diagnosis. The absence of anemia and splenomegaly, normal acid and alkaline phosphatase levels in the blood, and the knowledge of exposure to water high in fluoride content are helpful corroborative factors.

BIBLIOGRAPHY

1. Flemming, Moller, P., and Gudjonsson, S. V. Massive Fluorosis of Bones and Ligaments, Acta Radiologica 1932. 13:269-294.

2. Speder, M. Generalized Osteopetrosis (Marmorskelett) Is Not A Rare Disease. Its Frequency In Fluorine Intoxication. J. de Radiol. et d'electrol. 20:1-10 Jan., 1936.

3. Bishop, P. A., Bone Changes In Chronic Fluorine Intoxication; Roentgenographic Study. Am. J. Roentgenology 35 577-585, May, 1936.

4. Roholm, O., Fluorine Intoxication: A Clinical Hygenic Study. H. D. Lewis, London, 1937.

5. Leone, N. C., Stevenson, C. A., Hilbish, T. F., and Sosman, M. C. A Roentgenologic Study Of A Human Population Exposed to High-Fluoride Domestic Water. Am. J. Roentgenology, Radium Therapy, And Nuclear Medicine, 1955, 74, 874-885.

6. Stevenson, C. A., and Watson A. R., Fluoride Osteosclerosis. Am. J. Roent. 1957, 78, 13-18.

7. University of Arizona, Department of Agriculture Bulletin 225, November, 1949.

EDITOR'S NOTE.

Dr. Nauman would appreciate very much if physicians in the Southwest or in Sonora, would be so kind as to notify him of the occurrence of similar cases. He would further appreciate the opportunity of seeing roentgenograms of such cases. Your cooperation is respectfully requested.

A.J.B.

SEATO FELLOWSHIPS

The Southest Asia Treaty Organization for the 5th consecutive year is offering several postdoctoral research fellowships to established scholars of the member states to encourage study and research on the problems of southeast Asia and the southwest Pacific.

Grants, normally for a period of 4 to 10 months, include a monthly allowance of $400 and air travel to and from the countries of research. Candidates are selected on a competitive basis, taking into account their academic qualifications, experience, and published material. American candidates are nominated by the Department of State, with SEATO selecting the final award winners. American citizens may apply for awards for the 1961-62 academic year to the Executive Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 2101 Constitution Avenue, NW, Washington 25, D.C.

Osteoesclerosis Por Fluoruro

Dr. James D. Nauman

AUNQUE las alteraciones de los dientes debidas a la ingestión prolongada de agua con concentración alta de fluoruro son bien familiares, los efectos óseos de exposición alargada a fluoruro han recibido relativamente poca atención. Hace ya algunos treinta años, estudios radiológicos de los residentes en ciertas regiones de Marruecos con concentraciones altas de fluoruro en los abastecimientos de agua, y de obreros en fábricas dinamarquesas expuestos industrialmente a polvos de criolita (Na_3AlF_6), sugirieron relación entre intoxicación por flúor y la osteopetrosis (enfermedad de Albers-Schónberg(1, 2). Bishop(3) en 1936 y Roholm(4) el año siguiente demostraron que las alteraciones esqueléticas de la fluorosis con características y distintas de las de la osteopetrosis.

Estudios más recientes(5,6) han indicado que ciertos individuos tomando por muchos años agua conteniendo 4 o más partes por millón de fluoruro manifestarán alteraciones óseas semejantes a las que describió Roholm. En 1949, una comunicación de la Universidad de Arizona, Departamento de Agricultura, dice de 118 pozos en el estado de Arizona con concentración de fluoruro de 4.0 ppm. o más. Por consiguiente, una incidencia relativamente elevada de la osteoesclerosis por fluoruro sea anticipada en este estado.

La radiografía aquí presentada es la pelvis de un sujeto de 77 años, admitido en el hospital repitidas veces durante un período de 17 años con diabetes mellitus, tuberculosis, y descompensación del corazón. Había morado en Arizona por 36 años, en pueblo con abastecimiento de aguad agua contenindo fluoruro en 7.8 ppm. No presentaba síntomas o señales pertinentes al sistema muculoesquelético.

Exámenes radiográficos demostraban aumento difundido y simétrico de la densidad ósea, afectando principalmente la columna vertebral, tórax y pelvis. (Véase Fig. 1a). Trabéculas aparecían gruesas y confusas, pero no se habían fundido. Aunque las extremidades no mostraban alteraciones de las trabéculas, se podía ver espesamiento del periostio en sitios donde se insertan los tendones, en particular cerca de los codos y las rodillas. No se veían ensanche, combadura u otras deformidades de los huesos afectados. Osificación de los ligamentos sacroespinosos y sacrotuberosos se presentaba.

Ia impresión inicial fué la enfermedad de l'.

get. Estudios hemotológicos hechos en varias ocasiones no indicaban discrasia de la sangre, y no había señal de lesión neoplástica.

El enfermo jamás demostró síntomas relativas a las alteraciones óseas. Aunque intoxicación crónica por flúor en tiempos pasados se creía causa de varias enfermedades gastrointestinales, neurológicas, y cutáneas, estudios recientes no han comprobado efectos sistémicos definidos resultantes de la ingestión de agua con concentración elevada de fluoruro, más que manchando de los dientes y alteraciones de los huesos. El enfermo padecía de la tuberculosis pulmonar, pero esclerosis difundida como ésta no es característica de infección tuberculosa.

DISCUSIÓN:

1. Hallazgos radiográficos: La pelvis, las costillas, y la columna vertebral son las partes mas afectadas en la osteoesclerosis fluoruro. Las trabéculas son ásperas y confusas, pero quedan discernibles hasta las etapas mas adelantadas cuando se fundieran. Los huesos afectados suelen demostrar esclerosis simétrica y difundida sin combadura u otras alteraciones significativas de sus formas. No hay destrucción de los huesos o tendencia a fractura patológica. La osteoesclerosis por lo general no suele envolver la calavera o las extremidades, aunque hay espesura irregular del periostio en las inserciones de ciertos tendones, en algunos sujetos semejando osteofitas grandes. Hallazgo excepcionalmente interesante de esta entidad, aparentemente patognomónico, es la calcificación u osificación de los ligamentos sacroespinosos y sacrotuberosos. (Véase Fig. 1b) Por lo general, solamente las inserciones periferiales de esos ligamentos calcifican, pero a veces la estructura entera es afectada.

1. Consideraciones diferenciales: Ha parecido bien mencionar esta entidad principalmente porque puede ser confunida con otras causes más familiares de la osteoesclerosis, entre ellas las metastasis osteoblásticas, la enfermedad de Albers-Schónberg, la mieloesclerosis y la enfermedad de Paget. El aumento de densidad del esqueleto axil con trabéculas espesas y confusas; la osificación o calcificación de los ligamentos pélvicos; la ausencia de anemia y de engrosamiento del bazo; concentraciones normales de fosfatasas acídicas y alcalinas en la sangre; e historia de bebiendo agua con un contenido elevado de fluoruro todos sirven de factores corroborativos útiles.

THE COST OF MEDICAL CARE

Where Today's Dollar Goes for Mr. Average American
— Only 6c of his dollar is spent for health —

Housing	27c
Food	22c
Clothing	10c
Travel	12c
Recreation	6c
HEALTH	6c
Tobacco-Liquor	5c
All Other	12c

1959 U. S. Department of Commerce Office of Business Economics
(from AMA's publication, "The Cost of Medical Care")

The Treatment Of Poisonous Bites And Stings

II. Arizona Coral Snake And Gila Monster Bite

Charles H. Lowe, Jr., Ph.D.

Henry P. Limbacher, M.D.

This second of a series of reviews on the proper treatment of bites by small desert animals is again well done. It clears some of the superstitions in regard to the Gila monster. It is a good addition to the previous article on the bites of the desert rattler as it appeared in the July, 1959 issue, and it is again a strong warning against the overuse of cryotherapy.

THIS IS the second in a series of reports on treatments for poisonous animal bites and stings prepared by a special committee of the Pima County Medical Society.(1) While a large and growing literature is available on biological and medical aspects of the venoms and bites of rattlesnakes, this is not the case for the Gila monster *(Heloderma suspectum)* nor for the Arizona Coral Snake *(Micruroides euryxanthus)*. In fact, for *Micruroides* there is but a single paper on the venom and its effect on living animal systems.(2)

GILA MONSTER

The Mexican beaded lizard *(Heloderma horridum)* and the Gila monster *(H. suspectum)* comprise the unique lizard family Helodermatidae. These are the only poisonous lizards in the world. As in the case of the poisonous snakes, the venom glands of *Heloderma* are modified salivary glands. However, while snake venom is produced by salivary glands in the upper jaw, the Gila monster and Mexican Beaded Lizard produce the venom in salivary glands in the lower jaw as does the poisonous shrew *(Blarina brevicauda)*.

The Mexican Beaded Lizard is the larger of the two species, reaching a little less than three feet in total length. It is confined to Mexico where it occurs in the Pacific drainage from Chiapas northward into southern Sonora. The Gila Monster occurs in Arizona, extreme southwestern Utah and southwestern New Mexico, and in Sonora. It is primarily a desert species.

Several species of harmless lizards are confused with the Gila monster. One of these is the diurnal Chuckwalla *(Sauromalus obesus)*, a large desert lizard reaching 16-17 inches in total length. Another is the Banded Gecko *(Coleonyx variegatus)*, a small nocturnal lizard of 5-6 inches, often thought to be a baby Gila monster.

There is so much misinformation that has appeared in the lay press concerning the Gila monster that it is difficult for many to separate fact from fiction. Contrary to popular beliefs,

the Gila monster (1) has a normal excretory process with the usual posterior anus, (2) does *not* have a "poisonous breath," (3) does *not* have to turn on its back before introducing venom into a bitten object, (4) does have grooved teeth in the lower jaw, each of which is capable of serving as a channel for instant delivery of venom from the venom glands, and (5) does *not* attack persons encountered in the field. The Gila monster is a small, retiring animal (rarely over 20 inches total length) that is frightened upon the close approach of a larger one such as man.

While there is disagreement among the opinions recorded over the years by investigators as to whether the modified salivary secretions of *Heloderma* are harmfully poisonous or not, it is now clearly established that (1) the Gila monster is capable of quickly delivering venom into the tissue even in a superficial bite involving but one or two seconds duration, and (2) the resulting symptoms may be those of considerably gravity. The bite of a Gila monster creates a potentially dangerous situation.

The Hazard

It appears that there remains no uncontestable death directly attributable solely to the bite of a Gila Monster. Most of the few deaths that have been reported are known to have been complicated by debility, alcoholism, drug addiction, etc. It is to be fully appreciated, nevertheless, that Gila Monster bite has been involved in these deaths. Contrary to newsprint, there is no medical record of any healthy individual succumbing to the effects of the bite of a Gila monster. From the varied symptoms that have been produced (see below), it is naturally conceivable that a bite from a Gila monster could kill a "healthy" person, particularly a small child, although it is to be noted that this has not yet been demonstrated beyond reasonable doubt.

The Bite

Biting a human is a *natural defensive mechanism* on the part of the Gila monster. Bites from Gila monsters have been relatively rare. They have usually occurred after uncautious handling or teasing, of the lizards, and often have been the result of unfamiliarity with the species. The majority of the bites have occurred on parts of the extremities, primarily on the fingers. Accidents with captured specimens are known which have involved bites on the abdomen and buttock but without grave symptoms.

Minor bites have usually involved but one or a few teeth (usually front teeth) and the engagement of teeth for a brief duration of one or more seconds. Such bites occasionally have been through a cloth sack.

More serious bites have occurred when the lizard has secured a firm hold with its teeth and jaws, often for several minutes. An intermittent "biting" action of the jaws may ensue once the Gila monster has grasped an object in its mouth.

Factors Affecting Gravity of the Bite

1. The quantity of venom that is introduced.
2. The number of teeth that are engaged in the flesh of the victim.
3. The length of time the teeth are engaged.
4. The site of the bite (body or extremity) and whether or not the site is protected by clothing.
5. The physical condition and size of the lizard.
6. The extent of irritation of the lizard prior to the bite.
7. The size, vigor, and health of the victim.
8. The victim's individual susceptibility.
9. The psychological condition of the victim.
10. The physical exertion of the victim following the bite.
11. The extent of bleeding from the bite.
12. The previous first aid measures performed.

Symptoms Following Bites

Gila monster bites have been followed by symptoms ranging from slight pain to those of considerable gravity. The symptoms following minor bites usually consist of local pain (often slight) considerably prolonged bleeding at the site of the bite, and, occasionally, faintness with or without nausea.

More serious cases may elicit such symptoms as initial shock, severe pain, anxiety, profuse bleeding, rapid swelling, severe edema, nausea and vomiting, and perspiration. In addition, cyanosis, fever, swelling of the tongue, dyspnea, dysphonia, and paralysis, have been reported.

Treatment

There is no antivenin commercially available at the present time, and there is little likelihood that one will be produced, at least in the near future. It is suggestd that Gila monster bites be treated with the same thorough care as rattlesnake bites. It is to be reiterated that a bite of a Gila monster presents a potentially dangerous situation.

The following procedure is recommended:

1. *Disengage the jaws as promptly as possible,* even at the expense of some laceration. The jaws are frequently opened only with considerably difficulty if mechanical means (e.g., pliers) are employed. Pouring alcohol (rubbing, ethyl, whiskey, etc.), chloroform, or gasoline into a Gila monster's mouth is an effective way to cause the lizard to loosen its grip. This may also be accompanied by the application of the flame from a match or cigarette lighter to the under surface of the lizard's jaw or neck.

2. If lacerations have resulted from the bite, do not incise the wound (do not excise). However, if only puncture marks remain, make an incision at each site where a tooth penetrated. The toxin from a Gila monster does not spread as rapidly or effectively as the injected toxin from a rattlesnake. The incisions should be made directly over the wounds.

3. Apply suction to the wounds for at least thirty minutes.

4. Application of a mild constricting band is also indicated to discourage the lymphatic return to the regional lymph nodes. Follow tourniquet procedures as given under treatment for rattlesnake bite.

5. The patient should be kept quiet and should drink as much water as possible.

6. *Avoid drastic lowering of the tissue temperature* resulting from immersion of an extremity in iced water for longer than approximately one hour, or application of any other similarly severe refrigeration treatment. There are no contraindications to the use of an ice bag, however, for any length of time.

7. General supportive measures.

The art of medicine plays an important role in the treating of Gila monster bites. Place emphasis on combating CNS symptomatology. The use of Metrazol has been recommended.

Guard against tetanus and gas gangrene (tetanus-gas gangrene antitoxin), and pathogenic organisms (antibotics).

Anaphylactic reaction has not been observed in the case of Gila monster bite. ACTH or Cortisone may be used; the effect of corticosteroids is on metabolic response to shock, not on the venom itself.

Cases resulting from Gila monster bites rarely come to the attention of the physician. In view of the scarcity of good clinical information for such cases, the physician is asked to make a special effort to record details concerning the bite, symptomatology, treatment and response of such patients which he may have occasion to observe.

ARIZONA CORAL SNAKE

The Coral snakes, cobras, and their relatives comprise the family Elapidae. Two species of coral snakes occur in the United States. The larger Eastern Coral Snake reaches a total length of just under four feet. The smaller Arizona Coral Snake is seldom seen over 20 inches in length; most of the individuals found are under 15 inches. The species occurs in Arizona, extreme southwestern New Mexico and in Sonora, Mexico.

Some diagnostic features of the Arizona Coral Snake are provided by its color pattern. It is the only species in Arizona with red, cream (or white) and black bands completely encircling the body, with the red and cream bands adjacent. The simplest diagnostic feature, however, is the color of the tip of the snout which is black. The tips of the snouts of other species of snakes which are often confused with the coral snake are various colors, but are not black.

The Venom and Hazard

To our knowledge, there has never been a

case of a person bitten by the Arizona Coral Snake. It is timid and has not bitten persons which have actually handled it freely with or without knowledge that it was a poisonous snake. The species is secretive and primarily active on the surface at night. The probability of being bitten appears to be very low, even when the snake is handled without caution. Nevertheless, such handling of any coral snake is not to be recommended.

Neurotoxins produce a curare-like effect on the myoneuro-junction, interfere with nerve trunk conduction, or act directly on the central nervous system. They may produce nausea, vomiting and rarely result in bulbar paralysis.

The fang marks may be difficult to locate at the site of the bite; it has been suggested that bites of this species (as well as others) may have occurred in humans found dead on the desert without ascertainable cause. In any event, the Arizona Coral Snake should be considered a potentially dangerous animal.

TREATMENT

No antivenin is available in this country for coral snake envenomation and no procedure for treatment of the bite of the Arizona Coral snake has been earlier recommended. In fact, in the absence of specific antivenin therapy, a clear-cut and effective procedure for treating coral snake envenomation is actually wanting, i.e., short of removing a bitten appendage, a practice which has been carried out after bites by elapids.

The art of medicine in evaluating the patient, with emphasis placed on combating CNS symptomatology, is critical. In addition to local measures such as incision and suction and the application of ice packs over large areas, the following general supportive measures in snake-bite treatment should also be considered by the attending physician during close and continued observation: blood transfusions, fibrinogen, glucose-saline infusions, calcium, carbolic soap solution, corticosteroids, vasopressors, fluids and electrolytes, enema, urinalysis, tetanus antitoxin, gas-gangrene antitoxin, antibiotics, and (possibly) antihistamines.

A ligature, if applied tightly and *within a few minutes*, may be of some value in elapid poisoning. Incision and suction, even when immediately applied, may be of little avail.

Immediate local injection of an aqueous soap solution (watery solution of carbolic soap) has proved effective in combating cobra and krait venoms.(3, 4) It may also retard coral snake venom thus postponing the effect of its action. There is no known antidote other than antivenin for neutralizing any of the elapid snake venoms.

Warning: Direct application of iced water or ice to human tissues is acceptable only when rendered strictly as a temporary first aid measure, in which it may reduce local pain and reactions before arrival at a hospital.

The method of ice therapy (cryotherapy) for treating the bites of poisonous animals was started by Crum in 1906.(5) It is important to make the distinction between the dangerous immersion of a part of the body in ice water and/or crushed ice for a long period, and the medically safe use of ice packs, i.e., the positioning of a cloth between the ice and the patient's tissue.

LITERATURE CITED

1. Limbacher, H. P. and C. H. Lowe, Jr.: The Treatment of poisonous bites and stings. I. Rattlesnake bite. Arizona Medicine, 16, pp. 490-495. 1959.

2. Lowe, C. H., Jr.: Effect of venom Micruroides upon Xantusia vigilis. Herpetologica, 4, p. 136. 1948.

3. Ahuja, M. L. and A. G. Brooks: Suggested first-aid treatment for cobra bite with carbolic soap solution. Indian Med. Gaz., 80, pp. 461-463. 1945.

4. Ahuja, M. L. and G. Singh: Snakebite in India. In Venoms, Amer. Assoc. Adv. Sci. Publ. no. 44, pp. 341-351. 1956.

5. Crum, C. W. R.: Treatment of the bites of copperhead snakes. J.A.M.A., 46, p. 1433. 1906.

SELECTED REFERENCES

Bobert, C. M. and R. M. Del Campo: The Gila monster and its allies. Bull. Amer. Mus. Nat. Hist., 109, pp. 1-238. 1956.

Brown, W. H. and C. H. Lowe, Jr.: Technique for obtaining maximum yields of fresh labial gland secretion from the lizard Heloderma suspectum. Copeia, 1, p. 63, 1953.

Ghosh, B. N. and N. K. Sarkar: Active Principles of snake venoms. In Venoms, Amer. Assoc. Adv. Sci. Publ. No. 44, pp. 189-196. 1956.

Grant, M. L. and L. J. Henderson: A case of Gila monster poisoning with a summary of some previous accounts. Proc. Iowa Acad. Sci., 64, pp. 686-697. 1957.

Loeb, L., et al.: The venom of Heloderma. Carnegie Inst. Wash. Publ. 177, pp. 1-244. 1913.

Shannon, F. A.: Case reports of two Gila monster bites. Herpetologica, 9, pp. 125-127. 1953.

Shannon, F. A.: Treatment of envenomization by animals in Arizona. Arizona Med., 14, pp. 136-142. 1957.

Smith, H. M.: Handbook of lizards. Comstock Publ. Co., Ithaca, 557 pp. 1946.

Stebbins, R. C.: Amphibians and reptiles of western North America. McGraw Hill Co., New York, 528 pp. 1954.

Storer, T. I.: Heloderma poisoning in man. Bull. Antivenin Inst. Amer., 5, pp. 12-15. 1931.

Trethewie, E. R.: Pharmacological effects of Australian snake venoms. In Venoms, Amer. Assoc. Adv. Sci. Publ. No. 44, pp. 341-351. 1956.

Tyler, A.: An auto-antivenin in the Gila monster and its relation to a concept of natural auto-antibodies. In Venoms, Amer. Assoc. Adv. Sci. Publ. no. 44, pp. 65-77, 1956.

The Usefulness of Culdoscopy in Gynecologic Diagnosis

William J. Dignam, M.D.

The use of culdoscopy as a diagnostic procedure on an outpatient basis in a series of 110 gynecological patients is described, including detailed technique. The author's series represents: 1) infertility patients, 2) those patients with hirsuitism and amenorrhea, 3) suspected ectopic pregnancy, 4) patients with unexplained pelvic pain, and 5) miscellaneous; and the findings on culdoscopic examination are presented for each group.

CULDOSCOPY provides an interesting and in some instances, a very helpful method of investigating a gynecologic patient. In our hands it has found its greatest usefulness in the investigation of infertility patients. It has been employed, also, in the investigation of patients with possible ectopic pregnancy, patients with unexplained pelvic pain, patients with equivocal ovarian masses, and patients with ovarian dysfunction, such as the Stein Leventhal Syndrome. In our hands it is used almost routinely on an outpatient basis and this has proven eminently satisfactory. It is not a major inconvenience for the patient in regard to discomfort, time, or expense, and on occasion it has proven to be a decided improvement over the bimanual examination.

Prior to the procedure all patients have a careful bimanual examination to be certain that the cul-de-sac is free of obstruction. Our patients come to the outpatient department at noon and do not have any lunch. They are requested to take an enema at home before coming to the outpatient department. Just prior to the procedure they empty their bladders and each patient receives 100 mgm of Demerol as premedication.

For the actual performance of the procedure we employ a standard operating table with the foot piece lowered to a 90% angle with the main part of the operating table and a shelf attached to the foot piece approximately 8 inches below the surface of the operating table. The patient is requested to kneel on the shelf so fixed, and to spread her knees so that she can maintain her position easily for a period of 20 minutes or so. The positioning of the patient is one of the most important parts of the procedure and it is important that shoulder braces be attached to the table close enough to the foot piece so that the patient's thighs form somewhat less than a 90% angle with her lower legs. Then the table is placed in slight Trendelenburg position and raised to its maximum height. This permits the operator to perform the procedure in a standing position and with only shoulder braces restraining the patient, she is able to change her position during the procedure in order to bring various structures into view.

The perineum, vulvar area, and upper thighs are prepared with 1% Zephiran solution. A sterile drape is then applied. Exposure of the posterior fornix is obtained by means of a Haney retractor against the posterior vaginal wall and a single tooth tenaculum on the posterior lip of the cervix. This retractor produces moderate discomfort for the patient but since traction continues for only a very brief period of time she is easily able to tolerate it if proper explanation is made to her. The posterior fornix is prepared with Zephiran solution and anesthetized with 1% Xylocaine.

The administration of the local anesthetic is another one of the critical points of the proce-

Presented at the annual meeting of The Arizona Medical Associaton, Scottsdale, May 4, to 7, 1960.

Associate Professor Obstetrics and Gynecology, University of California School of Medicine, Los Angeles.

dure. The posterior fornix is a relatively insensitive area and requires very little anesthetic to make the procedure tolerable for the patient. If too much material is injected, particularly if the material is injected beneath the vaginal mucosa, it will elevate the cul-de-sac peritoneum away from the vaginal mucosa so that the trocar will not penetrate the peritoneum. Therefore, usually about 3 cc of 1% Xylocaine is employed and an effort is made to inject it into the vaginal mucosa and not beneath that mucosa. Three or four wheals are raised in a triangle or diamond shape around the spot where the trocar will be placed.

The instrument which I have employed is the Decker Culdoscope. The sheath for the trocar, which is part of this instrument, has a small channel down one side through which gas may flow into the peritoneal cavity of the patient. This, too, is a very important feature of this procedure. The major complaints which our patients have voiced have been due to the pneumoperitoneum following the procedure. The procedure, itself, has been attended by very little discomfort and the patients have had no complaints on this score. However, if a great deal of air enters the peritoneal cavity the patients are decidedly uncomfortable when they assume the erect posture. If this is severe, nausea and vomiting may result and the air may not be absorbed for a number of days following the procedure. Therefore, I think it important to use carbon dioxide and to take some precaution to be sure that the carbon dioxide, and not air, enters the peritoneal cavity. For this purpose we have employed an ordinary small tank of carbon dioxide and have filled a rubber bag reservoir with the gas before beginning the procedure. Then the tank can be shut off and gas from the bag flows into the abdomen under the negative intra-abdominal pressure. If the Trendelenburg position of the patient is not too steep the volume of gas which goes into the peritoneal cavity will not be large and the postoperative discomfort will be reduced.

With the patient in Trendelenburg position the trocar for the culdoscope is placed against the most dependent portion of the posterior fornix in the midline and moderate pressure results in its penetrating the vaginal mucosa and peritoneum and entering the peritoneal cavity. Every person who has employed the culdoscope has encountered some patients in whom penetration of the peritoneal cavity was difficult or impossible. In our hands the most common reasons for failures of this sort have been (1) too much local anesthetic material, (2) the trocar being off the midline, (3) the patient being too obese.

With the culdoscope being in the peritoneal cavity one is ready to observe the pelvic organs. Experience with the procedure and with the instrument are very helpful in interpreting what is seen. Structures are not magnified unless the instrument is very close to the structure being visualized. One is able to move the instrument around in the pelvis quite freely without any discomfort to the patient. When local anesthesia is employed the patient is able to change her position easily upon request and this aids in bringing the various structures into view.

In order that we may gain some concrete impression of the usefulness of culdoscopy in our hands I have reviewed a recent group of 110 patients upon whom this procedure was performed. Many of these patients were seen in consultation for other physicians and some of them have been investigated recently so that I do not have accurate results of treatment in some cases. Therefore, I shall not attempt to evaluate the procedure in terms of the discovery of remediable lesions but will confine my remarks to the findings observed at culdoscopy and perhaps make some general suggestions regarding treatment.

Infertility Patients: The first group of patients whom I should like to discuss is a group of 50 infertility patients. Some authorities feel that when an infertile couple has had a thorough investigation and no obvious cause for the infertility is discovered the woman should be subjected to exploratory laparotomy. I do not agree with this feeling but I do think that culdoscopy will provide much of the same information as one might acquire at laparotomy and at times unsuspected pathology is discovered in this manner. Culdoscopy is also of value in determining the extent of pathologic changes which have been noted by other means of investigation such as hysterosalpingogram. In this manner one may gain some impression of the liklihood of success of proposed treatment. As can be seen in the

accompanying table 50 infertility patients are included in the group reported here.

INFERTILITY

Failed	6
Inflammation	17
Normal	15
Sclerotic ovaries	7
Endometriosis	4
Fibroids	1
	50

In six of these patients we were unable to complete the culdoscopy. Inflammatory changes were noted in seventeen patients. These varied from a few minor adhesions to rather extensive involvement of both tubes. In eleven of these seventeen patients the prescence of adhesions had not been suspected prior to culdoscopy. The sclerotic ovaries mentioned in this table include three patients with very small fibrotic appearing ovaries and four patients with ovaries similar to those described in the Stein Leventhal Syndrome. Of the four patients with endometriosis only one patient had a preoperative diagnosis of endometriosis.

Opinion concerning the value of surgical treatment of post-inflammatory changes in infertility patients varies widely in different areas. We have found culdoscopy valuable in deciding which patients were most likely to achieve success following such surgery. Several patients have living babies following such surgery and are, of course, extremely grateful. On the other hand, at least four patients have been told that such surgery was very unlikely to be successful and we feel that they have been spared a very likely unsuccessful operation.

Patients with Hirsutism and Amenorrhea: We have been particularly interested in this group of patients and have had the opportunity to study a fair number of them. Culdoscopy has been quite helpful in deciding between adrenal and ovarian sources of these difficulties. It is my feeling, like that of many others working in this field, that we frequently see patients who have both adrenal and ovarian dysfunction. I believe that as more patients with these symptoms are being studied earlier in the course of their illness we are seeing patients with mild to moderate ovarian changes which would be more marked when the symptoms had been present for a greater length of time.

As can be seen in the accompanying table the present group of patients includes 31 patients with the symptoms of hirsutism and amenorrhea.

HIRSUTISM - AMENORRHEA

Failed	3
Diffuse ovarian changes	17
Normal	11
	31

Seventeen of the patients so studied had diffuse changes in the ovaries and eleven had completely normal ovaries. The ovarian changes varied from moderately enlarged ovaries with a thick white capsule and many small cysts protruding under the capsule to very large ovaries with the full blown picture described in the Stein Leventhal Syndrome.

Regarding the treatment of these patients it is my feeling that if the ovarian changes are marked, and infertility is important to the patient, a wedge resection of the ovaries should be done. Many of our patients were single or not interested in pregnancy. In such patients and in patients in whom the ovarian changes are not marked a trial of Cortisone may be indicated, particularly if the 17 ketosteroids are elevated. Both the surgical and the medical methods of management have been quite successful in treating the amenorrhea and the infertility when it was an issue. I have not yet been impressed with the effectiveness in relief of hirsutism from either method of management.

Patients with a history suggestive of Ectopic Pregnancy: Patients who are obviously acutely ill and have a history suggestive of ectopic pregnancy are no real problem to any of us. They need and receive immediate operation. However, there is a large group of patients that is quite a problem to all of us. These are the patients who have mild to moderate symptoms which are somewhat suggestive of ectopic pregnancy. Culdoscopy provides a means of resolving this issue promptly and therefore has been quite helpful to us in these instances. As can be seen in the accompanying table it was employed for this purpose in fourteen of the patients being reported here.

In two of these patients culdoscopy could not be completed. One of them was given a general

anesthetic and a colpotomy was performed. A tubal pregnancy was found and removed through that incision. The other patient was given a general anesthetic and examination at that time showed no enlargement in either adnexal area. A curettage was performed and produced secretory endometrium. No further procedures were carried out and the patient remained well. Of the three patients with intrauterine pregnancies all have continued successfully in their pregnancies and have had living children. Of the patients with inflammatory disease two were apparently of a chronic nature and nothing further was done. One was an acute salpingitis which was treated conservatively and the patient recovered successfully. The fourth patient was a patient with an appendiceal abscess which was recognized at culdoscopy. This was treated surgically and this patient has also done well.

ECTOPIC PREGNANCY

Failed	2
Normal	4
Inflammation	4
Intrauterine pregnancy	3
Ectopic pregnancy	1
	14

Patients with Pelvic Pain: We are all frequently puzzled by patients who complain of pain in the pelvic area for which we can find no adequate explanation. When the pain has continued for a long period of time and seems to be located in the genital organs we have employed culdoscopy to help decide about these patients. As can be seen in the accompanying table we have employed it for this reason in twelve patients. In seven of the patients our pre-operative impression of no demonstrable gynecologic disease was confirmed. Four of the patients had postinflammatory adhesions. One patient had a bilateral carcinoma of the ovary. Neither ovary was enlarged to more than twice its normal size. However, each was covered by many small papillary excrescences. This patient had a laparotomy and the diagnosis of carcinoma of the ovary was confirmed. She has remained well for eighteen months following this surgery.

PELVIC PAIN

Normal	7
Inflammation	4
Carcinoma of ovary	1
	12

Miscellaneous Patients: Three other patients are included because they also had culdoscopy performed during this same period. As can be seen in the accompanying table one patient was thought to have an adnexal mass but at culdoscopy none could be demonstrated. One patient with clinical endometriosis had an attempted culdoscopy but this was not successful. One patient had metastatic carcinoma of the lungs and culdoscopy was performed in a search for the primary site. However, both ovaries were completely normal.

MISCELLANEOUS

Adnexal Mass	Normal
Endometriosis	Failed
Metastatic carcinoma	Normal

Summary (1) A description has been presented of culdoscopy as done in our hands under local anesthesia on an outpatient basis. (2) A group of 110 patients who have had culdoscopy have been presented. I have discussed the indications for this procedure in our experience and the findings noted in the patients so studied.

Fluoride Osteosclerosis*

by
James D. Nauman, M.D.
Tucson, Arizona

Half of the group health insurance policies issued during 1960 provided a comprehensive or supplementary type of major medical expense insurance coverage, the Health Insurance Institute reported.


unsurpassed "general-purpose" steroid outstanding for "special-purpose" therapy
Aristocort®

Cardiac Septal Defects

Dwight C. McGoon, M.D.

The most common septal defect is an atrial septal defect which may be combined with various anomalous pulmonary veins with alteration of the venous return. Ventricular septal defects are also quite common. Complicating defects associated with valvular deformities occur.

The mechanism of abnormal blood flow from left to right and right to left and the effects of various cardiac septal defects resulting in differing clinical disease states and operative indications are discussed.

The current surgical techniques of repair and the technical problems which remain are reviewed.

THE INTERIOR of the heart was to remain hidden from the direct inspection and manipulation of the surgeon until it became possible to provide the circulatory needs of the body somehow other than by the action of the heart itself. Now that it has become possible to operate within the heart as a result of new surgical technics and equipment, a more nearly perfect understanding of the physiologic aspects of cardiovascular surgery is required to permit proper selection of patients for operation, proper preoperative and postoperative care and proper interpretation of the results of operation.

A classification of diseases of the heart which is oriented toward the physiologic aspects of cardiovascular surgery consists of two primary categories. The first includes all types of cardiac pathologic processes in which the disturbed physiologic relationships result from an abnormal communication between the pulmonary and systemic circulations. All remaining diseases can be included in the broad classification of mechanical disorders, which thus comprises all obstructive lesions, valvular insufficiencies and conditions limiting cardiac muscular function. A combination of these two primary categories of lesions may occur.

Section of Surgery, Mayo Clinic and Mayo Foundation, Rochester, Minnesota.

Read at the meeting of the Arizona Medical Association, Scottsdale, Arizona, May 4 to 7, 1960.

The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

Most abnormal communications between the systemic and pulmonary circulations are of congenital origin and result from defective partitioning during embryonic development of the original single-chambered heart and circulatory system. However, communications between the two vascular systems may be on an acquired basis, as in the case of a traumatic ventricular septal defect or rupture of an aortic aneurysm into the pulmonary artery.

Some of these communications are located proximal to the atrioventricular valves and others are distal. In a physiologic orientation the former may be considered as venous communications between the pulmonary and systemic circulations and the latter as arterial communications. These two types of communications function quite differently hemodynamically, and therefore run different courses and are distinct in respect to the criteria of operability.

VENOUS INTERCIRCULATORY COMMUNICATIONS

The most common example of this type of lesion is the atrial septal defect, which may be combined with various degrees of anomalous connection of the pulmonary veins.

Since the pressure relationships between the pulmonary and systemic venous chambers, in-

cluding the atria, are not drastically different, an atrial septal defect ordinarily must become relatively large before it will cause clinically significant hemodynamic alteration. In the presence of such a large atrial septal defect, the pressures in the two atria are essentially equal. It is therefore of interest and much importance to inquire into the reasons for the direction and magnitude of any shunt across an atrial septal defect.

What are the determinants of the right and left atrial pressures in the normal heart, and what determines the shunt occurring through an atrial septal defect if the pressures in the two atria under this circumstance are approximately equal? Since the venous side of the circulation is largely passive and is predominantly controlled by the action of the ventricles, the clue to the answer of these questions is found in the characteristics of the ventricles into which each of the respective venous chambers empties. The left ventricle is a thick-walled, muscle-bound structure, the chief function of which is to pump blood under relatively high pressures. On the other hand, the right ventricle is more thin-walled, and can pump large volumes of blood under low pressure and against the low pulmonary vascular resistance.

In the presence of a large atrial septal defect, the atrial chambers functionally become a single chamber with a single head of pressure which empties into the two ventricles during diastole. The volume of blood which each ventricle will accept under these conditions, relative to the opposite ventricle, determines the volume and Before the development of increasing vascular direction of the shunt through the septal defect. resistance the right ventricle is much more distensible and will accept as much as three or four or more times the volume of blood during each diastole as will the thick-wall and less distensible left ventricle. Consequently, it will accept not only all the blood entering the right atrium from the cavae but also a large proportion of the blood entering the left atrium from the pulmonary veins. At this time closure of the defect results in the prompt return of cardiac function and pressure relationships to normal, and the operation is very well tolerated by the patient.

Any technic of closure of the defect which results in complete and permanent obliteration of the defect has proved to be a very safe and successful procedure in this type of patient. Consequently, the semi-open atrial-well technic or the open technics of repair with the aid of hypothermia or extracorporeal circulation have given generally excellent results. An operative mortality rate of less than 2 per cent in this group of cases of uncomplicated defects is attainable.

The presence of various types of partial anomalous pulmonary venous connection associated with the atrial septal defect may present increasingly complicated technical problems in successful repair. Prolonged exposure at the time of operation may be necessary, so that the ideal operative approach is that permitted by extracorporeal circulation. Particularly is this true in the various forms of total anomalous pulmonary venous connection. Again, in the absence of severe pulmonary vascular changes, rerouting of the venous return to the normal respective atria and ventricles results in immediate relief of the hemodynamic derangement which these lesions impose, and therefore these procedures are relatively well tolerated by the patient.

So far, the discussion has been limited to hemodynamically uncomplicated abnormal venous connection between the pulmonary and systemic circulations. The chief complicating feature which may develop in these patients is obstructive changes in the pulmonary vascular bed which are associated in some way with the greatly increased pulmonary blood flow. Through the years pulmonary vascular obstructive changes may increase progressively and the pulmonary vascular resistance may reach such a high point that a severe burden is imposed upon the heart and particularly the right ventricle. This sequel rarely occurs early in life, and ordinarily its onset is delayed until the third to even the seventh decade. The rate of appearance of these pulmonary vascular changes is subject to wide variation from patient to patient, but in general the changes develop much less rapidly in patients with abnormal connections between the venous side of the two circulations than in patients with abnormal connections between the arterial side.

In theory, any patient who has an abnormal communications between the pulmonary and systemic circulations, whether it is venous or arterial, should benefit by closure of that abnormal communication, so long as the predominant flow of blood through the defect results in a larger pulmonary blood flow than systemic, for if that is true, closure of the communication would result in a lower pressure within the pulmonary arterial tree, and therefore would relieve much of the increased work of the heart.

In practice, however, all patients who have an atrial septal defect with a greater pulmonary blood flow than a systemic flow are not necessarily safe candidates for operation. Whenever the clinical manifestations of right-heart failure have appeared, associated with a markedly elevated right atrial pressure and pulmonary arterial pressure caused by markedly increased pulmonary vascular resistance, the risk of surgical correction becomes progressively increased.

ARTERIAL INTERCIRCULATORY COMMUNICATIONS

Although ventricular septal defect, truncus arteriosus, aorticopulmonary window and patent ductus arteriosus all are classic examples of arterial intercirculatory communications, the following remarks are confined to a consideration of the ventricular septal defect.

The direction and the magnitude of the shunt through a ventricular septal defect are directly related not only to the size of the defect but also to the relative vascular resistances of the two arterial systems. Initially, before the development of pulmonary vascular obstructive changes, the resistance to blood flow is very much less in the pulmonary circulation than it is in the arterial circulation, and consequently when the defect is large, a great shunting of blood from the systemic to the pulmonary arterial system occurs. This large volume of shunted blood imposes a tremendous overload on the left ventricle, resulting in left ventricular enlargement and often failure. Infants and children are therefore susceptible to the development of recurrent bouts to heart failure, pulmonary edema and pneumonia.

As is true when an atrial septal defect is present, in the presence of a ventricular septal defect there will be progressive development of obstructive changes in the peripheral pulmonary vasculature. When the defect is relatively large in relation to the cross-sectional diameter of the aorta, there is much more rapid development of these pulmonary vascular changes than there is in patients who have an atrial septal defect. Thus, severe pulmonary hypertension is common even in the first decade of life in patients who have a ventricular septal defect, in contrast to the late appearance of this type of hypertension in patients who have an atrial septal defect.

As the pulmonary vascular resistance increases, the pulmonary arterial pressure gradually increases until it finally comes to equal the systemic arterial blood pressure. Now, when pulmonary vascular resistance further increases there is no longer a change in the pressure relationships in the pulmonary and systemic circulations, but there is a progressive diminution in the amount of blood shunted through the ventricular septal defect until finally the flow of blood through the lungs is no greater than that through the body. The peripheral pulmonary fields in a roentgenogram of the thorax may then no longer show evidence of engorgement, and the electrocardiogram may indicate progressive diminution in left ventricular overwork. Coincident with this relief in the burden of the left ventricle, the clinical status of the patient may seem to improve and his general vitality increase. This patient, whose condition is approaching inoperability since his pulmonary blood flow is diminishing toward equality with the systemic flow, is therefore clinically quite well, in sharp contrast to the patient approaching inoperability who has an atrial septal defect.

As the pulmonary vascular resistance increases further, the pulmonary blood flow will become less than the systemic flow, the predominant shunt through the communication will then be from right to left, cyanosis will appear, and later, progressive right-heart failure will develop. Such a patient with a ventricular septal defect might be referred to by some as the victim of Eisenmenger's syndrome. The condition of such patients clearly is inoperable in the sense that

closure of the defect would only serve to increase the right ventricular and pulmonary arterial pressures, and thus increase the burden imposed on the right ventricle.

The technic of repair of a ventricular septal defect is not a controversial issue, since the defect can be closed satisfactorily at this time only with use of extracorporeal circulation. Some surgeons prefer to achieve closure of a ventricular septal defect by insertion of a prosthetic substance, but our own preference is almost uniformly to repair these defects by direct suture. Fortunately, the technic of direct suture which was developed by my colleague, Dr. John W. Kirklin, has brought about almost uniform avoidance of the previously difficult complication of complete heart block. The sutures are so placed that they avoid injury to or constriction of the delicate bundle of His.

Other factors of technic may play an important role in the cardiocirculatory function after operation. The length of the incision in the ventricle has been shown to have a relationship to the work capacity of the right ventricle after closure of the defect, and therefore the shortest possible incision is employed. My associates, Dr. Kirklin and Dr. F. H. Ellis, Jr., and I prefer routinely to establish cardiac asystole by cross-clamping the root of the aorta to assure a quiet, bloodless field in which to complete closure of the defect accurately and precisely. This ischemic asystole is rarely required for longer than 20 minutes, and ischemic asystole thus produced has not resulted in clinically detectable reduction in the myocardial work capacity.

Particularly gratifying has been the steady improvement in the results of closure of ventricular septal defect. By 1958 a mortality rate of 10 per cent was achieved, and in 1959, 108 children were operated upon at the Mayo Clinic for ventricular septal defect, with a mortality rate of less than 10 per cent. All patients, no matter how severely ill, or of whatever age, have been accepted for operation when repair was indicated clinically, and the only patients who have been declined surgical treatment are those whose pulmonary blood flow seemed to be lower than the systemic blood flow and who therefore could not be benefited by any known means.

A consideration of septal defects associated with valvular deformities, such as in the endocardial cushion group of lesions, or septal defects associated with pulmonary stenosis, is beyond the scope of this discussion.

SUMMARY

Normally, pressures in the left chambers of the heart exceed those in the right. However, the mechanism of blood flow from left to right through an atrial septal defect is not the same as in the case of a ventricular septal defect. The volume of the shunt through a large ventricular septal defect is directly related to the pulmonary vascular resistance, but the volume of the shunt is only indirectly related in the case of an atrial septal defect.

These discrepant effects of the various types of cardiac septal defects result in differing clinical disease states and operative indications, as well as progression of disability. The current surgical technics of repair of septal defects, the technical problems which remain and the results achieved are briefly reviewed.

More than 80,000 excess deaths occurred in the United States during the influenza epidemics of 1957-58 and 1960.

— National Tuberculosis Association
"Medical News" Feb. 1961

Civilian Medical Problems In The Defense Against Chemical And Biological Weapons

Colonel Dan Crozier, MC

United States Army

The possibility of the use of chemical and biological agents as offensive weapons against the United States is not something from a science-fiction novel. The threat is real and we cannot sit idly by and wait for the first attack before making plans for our defense. The potential patient load that could occur from the use of these weapons is great but with proper preparation including the provision of necessary supplies, indoctrination of the population, and the training of essential personnel, medical care can be provided and a high percentage of casualties will survive.

"WAR IS not inevitable but if war occurs it is inevitable that new weapons systems or new application of known weapons systems will be employed. In the past, with the development of each such system, it has been said that the new weapon was the ultimate in destructive agents, that counter-measures could not be devised. The inaccuracy of this pessimism has been proven in every case." This statement, slightly paraphrased, made by Lieutenant General Leonard D. Heaton, The Army Surgeon General, at the Annual Meeting of the American Medical Association in Miami this past June brings into proper perspective the situation which confronts those responsible for devising defensive measures for the civilian population of this country. First, new weapons will be employed, second, counter-measures can and will be developed. In addition, in the event of total war, it is inevitable that with the new weapons delivery systems available the vast non-military population of the United States will be involved to an extent never before dreamed of.

It is difficult for many individuals to face objectively the possibility that chemical or biological weapons might be employed against this country. Bullets, bombs, and shell fragments they can accept but the very idea of the use of poison gas or germs produces a feeling of frustration and hopelessness. We must recognize the very real possibility that these two methods of warfare may be employed as offensive weapons against the Continental United States and make the preparations necessary for protection against them.

Agents in each of these categories may be used directly against man or indirectly through destruction of his food supply, either plant or animal. I will confine my discussion to those weapons which are effective directly against man and, in the case of the chemical agents, to the anticholinesterase agents, the blister gases, and the non-lethal or incapacitating compounds.

Biological and chemical weapons are in some respects quite similar while at the same time they have distinctly different characteristics.

Their similarities are:

Chart No. 1

Similarities of Chemical and Biological Weapons

1. Area weapons
2. Produce mass casualties
3. Recognition requires special methods
4. Affect living cells only

Address presented at Ninth U. S. Civil Defense Council Conference, Medical-Health Section, Minneapolis, Minnesota, 21 September 1960.

1. They are area weapons and are particularly adaptable for offensive use against large groups of personnel. It is unlikely that either would be used against a single individual or even small groups. Densely populated areas such as manufacturing or transportation centers would be likely targets.

2. They may produce tremendous numbers of casualties. It is conceivable that thousands, tens of thousands or even greater numbers of casualties could result from one offensive effort.

3. Recognition of an attack requires special methods. In contrast to the so-called conventional weapons, an attack with chemical or biological agents *may* not be recognized until their effects on those exposed to the agent begin to appear. Intensive programs to develop more satisfactory methods for early recognition are now underway.

4. Both of these weapons systems exert their effects on living cells only and spare buildings, equipment, and other inanimate objects which the enemy may wish to preserve for his own use. They may be said to produce casualties requiring, except for the burns of blister gas, medical rather than surgical treatment.

Chart No. 2

Differences

1. Onset of symptoms differ
2. Different mechanism of action
3. Susceptability different
4. No artificial immunity for chemical agents

1. Symptoms due to exposure to the anticholinesterase agents may have their onset in seconds or minutes and the blister gases in a few hours while the onset of symptoms due to the effects of biological agents will not occur for many hours or days. This difference requires a totally different approach to the problems of treatment of casuaties resulting from the employment of these two weapons systems.

2. Chemical warfare agents exert their effects through direct toxic actions. They do not multiply in the body and the total affecting dosage must be obtained from the agent as delivered by the enemy. The number of compounds which theoretically can be produced is unlimited and their mechanism of action may vary widely. Biological weapons produce their effects by multiplication of the microorganism within the human body. A very minute exposure of a susceptible individual may be sufficient to cause death or disability. These agents occur only in nature and are therefore limited in number.

3. All human beings throughout the world are, for practical purposes, equally susceptible to the chemical warfare agents. This is not true for the biological weapons. Marked differences in susceptibility occur not only in different geographical locations but also in different age groups or in groups protected or unprotected by artificial or natural immunity. There also may be significant racial differences in susceptibility to some infectious agents. A biological agent which might be effective in one section of the world or against a particular group might not be effective against another group or those in another geographical area.

4. There is no known method of producing immunity to the chemical warfare agents. On the other hand we have effective vaccines against many of the biological agents which are potential offensive weapons for use against the United States and additional vaccines can and will be produced.

As you have already heard, effective mechanical methods have been developed for protection against both chemical and biological weapons. The most important of these is the face mask. These masks, which can be produced in quantity, are both effective and comfortable. They will protect the wearer against the inhalation or entry through the skin of the face, or through the eyes or the gastro-intestinal tract of any of the likely biological or chemical weapons. This protective mechanism is effective, however, only if being worn at the time of an attack or put on at the very first appearance of the agent. Human nature being what it is, it can be expected that many individuals will not have their mask immediately available should they become necessary and secondly, our presently available warning systems are such that we have no assurance that a massive initial surprise assault with either of these weapons systems would be recognized before a great deal of damage was done.

Protective clothing, filters for air conditioning and ventilating systems and gas proof and germ proof buildings are also a reality. Housing for essential military and civilian activities no doubt will include some of these features in future plans.

I would like to turn now to a more detailed discussion of some of the problems that we will face in the care of casualties resulting from chemical agents. We have already established the definite possibility that large numbers of civilians could be involved in such an attack. There are a number of different agents with varied characteristics that could be employed but I will confine my remarks to three.

First is the group of anticholiesterase agents or the so called nerve gases which you have read so much about in the newspapers. They constitute a serious potential threat but, contrary to the scare headlines, not a hopeless one. If we are properly prepared effective counter-measures can be applied.

These agents are effective either in droplet or vapor form, are amazingly rapid in their action, and are effective in extremely low concentrations. One deep breath may be sufficient for inhalation of a lethal dose and a few droplets applied unnoticed to the exposed skin may result in death.

The anticholinesterase agents act through destruction in the body of essential enzymes. The signs and symptoms produced may be divided into the muscarine-like effects, the nicotine-like effects and the central nervous system effects.

Chart No. 3

Muscarine-like Effects

Constriction of pupils
Lacrimation
Difficulty in focusing
Eye Pain
Rinorrhea
Chest pain
Increased bronchial secretion
Wheezing and cough
Nausea, vomiting and diarrhea

The muscarine-like effects produce constriction of the pupils, lacrimation, difficulty in focusing and possibly some mild discomfort in the eyes. The nose may be involved producing rhinorrhea or a profuse watery discharge. When the exposure is to vapor rather than to droplets on the skin these will be among the first symptoms produced.

Inhalation of the gas produces a pressure like pain in the chest from constriction of the bronchial tubes, increased production of secretions in the bronchial tree which may interfere with breathing, and wheezing and cough. Nausea, vominting and diarrhea may occur from effects on the gastrointestinal tract.

Chart No. 4

Nicotine-like-effects

Muscular weakness
Easy fatigue
Muscular twitching
Pallor

The nicotine-like effects result in muscular weakness, easy fatigability, muscular twitching and pallor of the skin. The muscular weakness may involve the muscles of respiration producing one of the most serious effects of the agent.

Chart No. 5

Central Nervous System Effects

Anxiety and restlessness
Headache and dizziness
Tremor
Respiratory depression
Convulsions

The central nervous system effects result only from systemic absorption of the agent but this can result either from inhalation or from contamination of the skin. Anxiety and restlessness occur and the patient may complain of headache and dizziness. Muscular twitching and tremors may appear. Central nervous system effects may involve the respiratory center producing depression of respiration. This, added to the already present respiratory embarrassment produced by the increased secretions, broncho-constriction and weakness of the respiratory muscles may have very serious consequences. With large doses generalized convulsons may occur.

This description of the clinical picture of nerve gas poisoning is greatly oversimplified and a number of important aspects have been omitted. For our purpose this morning, however, it will be sufficient to bring out the important points

necessary for understanding our defensive requirements.

Colonel Searle discusses a figure of 30% casualties resulting from an intensive nerve gas attack on a densely populated area. This figure has been derived through sound reasoning and is as close as can be determined without actual experience factors. It is a reasonable figure that can be used for planning purposes. It is based on the assumption that the individuals exposed have gas masks available and can get them on quickly. Within such a group the variation in severity of symptoms will be quite wide due primarily to the differences in the dose received.

For general planning purposes these casualties may be divided into four approximately equal sized groups. The first group or approximately one fourth of the total will have received less than one lethal dose and will survive even without treatment. They will exhibit mild symptoms including constriction of the pupils and some blurring of vision, probably some discomfort in the chest and salivation. They may be incapacitated for minutes or hours but will recover. With such symptoms, however, most of these patients will receive treatment if it is readily available. That is, if the individual is carrying his own supply of atropine in a syrette or an automatic injector he is going to use it if he feels he has been exposed. These individuals will not require the time or attention of others.

The second group comprising approximately one quarter of the total number affected will have received more than one but less than 3 to 5 lethal doses. Symptoms will be more pronounced and the individuals will be more severely incapacitated but they will survive if they receive an immediate dose of atropine. Most of these individuals will be able to treat themselves, that is, administer their own atropine if they have it immediately available, but some will require assistance either because of physical incapacity, because of confusion or poor judgment due to fear or excitement, or because they have not bothered to carry their atropine with them. Some of these individuals will die, however, because all will not get this very essential treatment.

Up to this point we have discussed the care and treatment of approximately one half of the total number of casualties. This type of care should be available without the assistance of specially trained personnel. This is self aid or buddy aid and instruction in this area should be high on the priority list of civil defense planning.

The next group will have received more than 3 to 5 lethal doses but somewhat less than the most severely affected group. They will survive with the use of atropine alone but the drug must be given quickly and in large amounts. In such cases the ordinary intramuscular administration probably will not suffice and injection into a vein or directly into the heart or lung with a long needle will be required. The treatment of this group of casualties will require the assistance of specially trained personnel. This does not imply that survival will depend on the presence of physicians, nurses or other highly trained professional personnel, but rather that individuals specially trained for this purpose will be required.

The fourth or most severely affected group will have received dosages up to as high as 30 to 50 lethal doses. They will not survive if treated with atropine alone, even in massive doses, but will require artificial respiration which must be started immediately and continued without interruption for a number of hours. Mouth-to-mouth insufflation is the method of choice to supply this added therapeutic measure on an emergency basis but cannot be used in a contaminated atmosphere.

Where masks must be used a special mask-to-mask mechanism has been developed by the Army which allow artificial respiration to be continued even under these circumstances. This item is not yet in production.

For use in either a contaminated or uncontaminated atmosphere, a mechanical respirator operating from any source of compressed air has been developed. This unit is adjustable for both volume and pressure and will cycle if either the tidal volume (900-1000 cc) or the prescribed pressure (60 cm H^2O) is achieved. This is a simple, sturdy, relatively inexpensive piece of equipment which is very efficient but requires the insertion of an endotrachael tube.

I would like to pause here for a moment to discuss the role of the physician in the care of these casualties. In the event of a nerve gas attack the percentage of physicians affected will be as high as that for other occupational groups. Physicians, even those mildly exposed and not requiring treatment will be incapacitated for some period of time. The reduced number of physicians available, combined with the very important fact that treatment must be given immediately, requires that the treatment described be started by non-medical personnel. The patients in groups three and four will, in a well-developed Civil Defense Organization, be concentrated, after initial emergency treatment, at central collecting points where further medical care will be available. The presence of a physician during the early stages of treatments will make little difference in the ultimate outcome if the civilian population has been properly trained. As time after the attack progresses, those still requiring treatment will need all the help they can get and the best professional judgment available if they are to survive.

Survival of casualties resulting from a nerve gas attack is primarily a function of time. If adequate emergency treatment, atropine and artificial respiration, is immediately available, it is possible theoretically to save a high percentage of those affected. If it is not immediately available, and by this I mean within one to four or five minutes, the percentage of deaths is going to be extremely high. Death is due to failure of respiration caused by paralysis of the respiratory muscles, depression of the central nervous system, secretions in the bronchial tree, and perhaps by constriction of the bronchial tubes.

I have spoken at length about the use of atropine in the treatment of nerve gas casualties. It is essential in the treatment of this condition but also is is a potent poison. The individual exposed to nerve gas is very tolerant to atropine and those receiving a heavy dose of an anticholinesterase agent may require fantastically large amounts of the drug. On the other hand the individual who has absorbed little or no nerve gas may develop mild symptoms of atropine poisoning from a single injection of 2 milligrams and two injections may render him unable to shoot a rifle or attend complicated equipment. For this reason the avoidance of atropine administration to the individual who has not actually received a significant amount of nerve gas, and who must carry on essential activities is just as important as prompt administration to those who have been exposed.

The Army has adopted the policy that each soldier normally will carry one automatic injector of atropine but that under special circumtances he may carry up to three individual doses either as the automatic injector or the syrette. All military personnel will be taught to recognize the need for atropine and non-professional personnel will be authorized to administer up to three doses to any casualty. The medical soldier will carry additional supplies of this drug, but under combat conditions this amount will be limited.

The military services have four standard atropine items specfically designed for the treatment of nerve gas casualties. These are the automatic injector, the syrette, and the ampin, each containing 2 milligrams of atropine, and a 25 cc vial containing 2 milligrams of atropine per cc. The first three items are primarily for field use although the syrette is also a standard hospital item for a theater of operations. The automatic injector is for self administration by the individual soldier and can be used with a minimum of effort. It is considerably larger, heavier, and more expensive than the syrette so the latter will be used for other than self administration. The 25 cc vial will be used at medical treatment facilities where the administration of large amounts of the drug may be required.

Up to this time I have not mentioned the use of oximes. This series of drugs, the newest addition to our therapeutic armamentarium for the treatment of poisoning with anticholinesterase agents, is an adjunct only and can replace neither atropine nor artificial respiration. The exact mechanism of their action is poorly understood but they appear to exert their primary affects on the nicotine-like action of the anticholinesterase compounds. They also may have some beneficial action on the muscarine-like effects and the central nervous system manifestations. They are effective to some extent when given orally but their action is slower by this route and the nausea and vomiting of severe nerve gas poisoning may make this method of administration im-

practical.

When given parenterally, either intravenously or intramuscularly, they appear to decrease the amount of atropine required and to shorten the time that a severely poisoned patient will require artificial respiration. This latter effect would have great practical importance in the event of a mass casualty situation, or where treatment is being carried out under field condition. In addition there is some evidence that the oximes are effective when used prophylactically. Considerably more work on these drugs is required before an item suitable for general use is developed.

What then is our position in the defense against a nerve gas attack? In a properly trained, equipped, and disciplined population, the early symptoms and signs of nerve gas poisoning will be recognized and proper protective measures applied. For those requiring treatment, adequate methods are available.

The most important factors to be considered are time and training. And by time here I mean seconds and minutes. The mask is going to be of little benefit if not immediately available and properly used. Atropine will be of little value if too long delayed. Artificial respiration will be useless if not promptly applied and properly administered. There will not be time for physicians or other specially trained personnel to seek out and treat the casualties. Neither will there be time for rescue squads to collect these casualties and transport them to a central treatment station. Treatment must be started immediately and that can be done only by the individual himself and those around him. If they are to survive they must understand and be able to administer the preliminary treatment promptly and properly.

The second group of chemical agents that might be used against us is the blister gases of which mustard is the best known and the most likely to be used. This agent was used extensively in World War I and was very effective. It is encountered either as a gas or a liquid and produces its effect on the skin, eyes, or lungs. As its name implies it blisters or burns any tissue with which it comes in contact. Masks and protective clothing offer excellent protection. When one is exposed to either the gas or the vapor the onset of symptoms is quite slow and the full effects may not be appreciated for many hours. The mortality resulting from this agent is small being only about 2% but the time required for recovery is prolonged and the patients require a great deal of care.

The effects of this weapon are similar to those of any other vesicant agent and there is no specific treatment once the burns have occurred. Copious washing is quite effective when used early for liquid contamination of the eye and protective ointment or soap and water will remove the liquid agent from the skin. Burns resulting from these agents are treated like any other severe burn. The pulmonary injuries are treated symptomatically with antibiotics being used only if indicated for the control of infection.

The third group comprises the so-called nonlethal or incapacitating agents. There is little that I can add to what Colonel Searle has already told you about these potential weapons. Here we are concerned not with saving life but with maintaining effectiveness. The list of possible agents is large and without doubt more effective compounds will be produced. At the present time our aim should be to keep abreast of developments and be prepared to direct our efforts in the proper direction when required.

Let us turn now to some of the civilian medical problems that would be encountered in the event of an attack against the continental United States with biological weapons. Since the beginning of recorded history, naturally occurring disease has been an important factor in the outcome of military campaigns. It is only natural that this means of producing noneffectiveness would be considered as a possible offensive weapon.

In Dr. Fothergill's paper he has shown very clearly that, in spite of the fact that biological weapons have, to our knowledge, never been employed on a large scale, the use of biological agents as an offensive weapon is feasible. In addition, the geographical area that possibly and probably would be affected by a single offensive effort, is larger than that of any other known weapons system. It's overt use would be almost exclusively as a strategic weapon which would expose the civilian population to as great if not greater extent than it would the military. Lo-

calized covert attacks by sabateurs could be effective and would give rise to special problems. Time, however, does not permit additional discussion on this method of employment. You have already learned of the characteristics of potential agents, and of the methods and effectiveness of dissemination. The problems of early detection of an attack and identification of the organism also have been discussed.

In contrast to the chemical agents, time, as measured in seconds or minutes, for the institution of life-saving treatment, is not a critical factor. For this reason it is not as essential, as it is in the case of the chemical weapons, that everyone understand the methods of treatment or that medication be immediately available. Our approach to the treatment problem, therefore, will be different.

The most effective defensive measure against such weapons is biological immunity either naturally acquired or artificially induced. It is unlikely that an enemy would employ the organism of one of the childhood diseases against which a large proportion of the adult population of this country is known to be immune. On the other hand he might well consider an agent against which we were known to have an effective vaccine if he thought that the number of people unprotected by this means was sufficiently high. The military forces of the United States keep their personnel at a high state of protection against those diseases for which routine immunization is provided. If the administration of vaccines against other diseases is ordered there is assurance that a high percentage of military personnel will be inoculated. The civilian population, on the other hand, does not exhibit an enthusiastic inclination toward such protection even when the protection is known to be of high order. For example, in September 1959 after 4 years of effort, only 68 per cent of the population of this country under 20 years of age had received 3 poliomyelitis inoculations. Obviously the mere existence of an effective vaccine, would not necessarily deter an enemy from employing a specific agent. Effective legal means for enforcing compulsory immunization in the civilian population would diminish this problem. Even in time of danger and short of martial law, considerable difficulty would be encountered in executing an effective inoculation program on a voluntary basis. The presentation of legislation designed to overcome this difficulty could be done without the expenditure of funds and would do as much as anything to bring to the attention of our state and national leaders the importance of this problem.

Within the past few years our knowledge of vaccines has increased enormously. New vaccines have been developed, production methods have been improved, and production capabilities have been increased. We have every reason to believe that even greater advances will occur in the future. It would be impractical, however, to attempt, under peacetime conditions, to immunize the civilian population, or even the military against all of the potential BW agents for which we now have or possibly could develop effective vaccines.

Even a known effective vaccine such as that against smallpox provides relative immunity only and additional vaccine must be administered at time of extensive exposure. Other vaccines such as plague and cholera have not undergone adequately controlled studies and their degree of effectiveness under adverse conditions is not known. In addition, all of our presently available vaccines have not been tested in man against the respiratory route of exposure or the large dosage that possibly could occur in the event of an attack with biological weapons. Studies in animals and in some cases in human volunteers, show that these two factors probably would not make significant differences.

In general, it is felt that vaccines would be effective and would offer our best protection against such an attack. In view of this the development of new methods for the mass administration of vaccines is important. Distinct progress in the development of combinations of vaccines in a single injection has been made and additional progress is in view. One vaccine has been developed that can be given by mouth and there is every reason to believe that further advances will be made in the preparation of oral vaccines against diseases normally contracted by way of the gastro-intestinal tract.

The jet injection device developed by the Army for the administration of vaccines has distinct advantages over the needle and syringe

method when large number of injections must be given. It is possible with this device for one person using one instrument to administer as many as 500 injections per hour with the complete elimination of the danger of serum hepatitis.

Methods for the administration of vaccines by aerosol are being studied and possibly may open new avenues of approach to the mass inoculation problem.

The use of prophylactic measures other than vaccines would be a problem for the medical profession and Civil Defense authorities in the advent of biological warfare. The use of presently available antibiotics for prophylaxis in large groups of people over long periods of time would be impractical, wasteful, probably dangerous, and should not be considered. It is possible that yet undiscovered antibiotics may change this viewpoint.

The use of prophylactic antibiotics in a population known to have been exposed to an attack with a biological agent would be a different matter but here again very careful consideration would need to be given to the entire problem before a final decision could be made. With the tremendous demand for antibiotics for the treatment of clinical cases, very careful evaluation of the effectiveness of prophylactic administration would be necessary. In some diseases a broad spectrum antibiotic will delay but will not prevent the onset of the disease. In others, administration of the drug late in the incubation period will prevent the disease while if given early it will simply delay the onset. In monkeys, in at least one disease, the early administration of an antibiotic will delay the disease as long as the drug is administered but the disease will be prevented only if the vaccine against that disease is given simultaneously.

The treatment of patients contracting a disease as a result of exposure to a BW agent will not differ materially from the treatment of those contracting the disease naturally. The abnormal route of exposure and the possible unusually heavy infecting dose resulting from the artificial dissemination of the agent may produce unusual manifestations or unusually severe disease but the causative organism, to the best of our knowledge, will respond in the same way to specific therapy regardless of the mode of infection.

If an individual is infected by way of the respiratory tract with an organism which normally enters the system through some other means, such as an insect bite or by way of the gastrointestinal tract, the onset of the disease may be different, certain useful diagnostic findings such as the cutaneous lesion of scrub typhus, may be absent, and the clinical picture may be confused. As a generalization, most of the diseases, believed to be of biological warfare import, have an onset which is grippal in character, with or without obvious initial signs of respiratory involvement.

Practically all clinical infections with bacterial or rickettsial agents considered to have the characteristics which would make them likely candidates for BW, will respond rapidly to the broad spectrum antibiotics if treatment is begun promptly. To the present time antibiotic resistant strains of these organisms have not developed in nature but the possibility of the laboratory development of resistant strains for use as offensive weapons must be kept in mind. Treatment of viral infections would not be as successful but we have effective vaccines against a number of these agents and progress in the development of others is steadily increasing.

It is not necessary that 100 per cent of the exposed population be made sick for an attack to be effective. If large numbers of individuals become ill, additional large numbers will be required to care for them. In addition, there will be the bonus effect which will accrue from fear. The fear of exposure to something new that one cannot hear, feel, see, or smell will give rise to ual becoming ill will be a source for rumors and counterrumors. Minor symptoms will be exaggerated by those who feel they may have been exposed. The reaction of individuals waiting out an incubation period may add materially to the loss of manpower and effectiveness.

Individuals becoming ill as a result of exposure to BW agents will not be affected so suddenly that emergency treatment will be required at the site. Generally there will be warning

symptoms which will develop over hours or days which will allow them time to return to their homes. In addition they will not all become ill at the same time. For some, the incubation period may be quite short while others may not be affected until several days later. Some will not become casualties at all. This removes the extreme urgency that occurs in the treatment of nerve gas casualties.

Casualties occurring from BW weapons will not, except under unusual circumstances, be treated in hospitals. Elaborate treatment measures such as oxygen tents or intravenous fluids will not be used but effective treatment will be available at home or in improvised treatment centers. Diagnostic problems will be encountered, particularly at the onset and some patients will die regardless of what we do. If we have made the necessary preparation and adequate supplies of drugs are available, effective treatment can be provided for most of those affected. This means, however, that the requirement for additional quantities of drugs, numerous psychological problems. Any individ- over and above the amount normally consumed in an area, must be realized and the necessary stocks placed so as to be available on short notice.

Of equal importance is the training of public health officials, other physicians, and nurses in the management of infectious disease. Because of the tremendous advances made in the control of these diseases in recent years the number of physicians with a particular interest in this field has decreased sharply. It is not unusual for a young doctor, to go through medical school and a year of internship and never see a case of smallpox, diphtheria, typhoid fever, or malaria, diseases which were common in this country only a few years ago. He will have only a reading knowledge of yellow fever, dengue, Venezuelan equine encephalomyelitis, and possibly also of psittacosis, tularemia, Q fever, and coccidioidomycosis. It is essential that national, state, county, and local medical societies stress the importance of expanding our knowledge of these diseases.

It is important also that we continue to expand our medical research programs in these areas. The military services have taken cognizance of this and programmed an increasing effort in this field over the next few years. Probably in no other field of military research are the benefits to civilian medicine and to mankind as great as in the study of infectious disease.

Average life expectancy in this country has increased by more than 22 years during the present century, Health Information Foundation reports. The average baby born in 1900 could expect to live only 47.3 years, against 69.7 years for one born in 1959.

He Carried the Good Book and the Scalpel

Some observations of early medicine in Arizona—

A. I. Podolsky, M.D.

"Let him who would be the greatest among you, be the servant of all. . . . Love and services will win, or I will fail." — Harry Alanson Reese, M.D. — January 23, 1868 - April 25, 1949.

THESE ARE the opening lines of address of the President before the Arizona State Medical Association at its Fortieth Annual Meeting, held in Nogales, Arizona, May 7-9, 1931.

This humble essay is not intended as a eulogy of Harry A. Reese, M.D., an early pioneer of medicine in Arizona; — his kindness, gentleness, unselfish devotion to his work and his simple greatness remain as a living memorial in the hearts of his colleagues and patients. Mention of his name to anyone who knew him invariably elicits a softness of the look in the eyes, and a respectful modulation of the voice. I have yet to find someone who didn't consider him somewhat of a saint. These observations are a contribution to the compilation of history of medicine in Arizona, and are, in part, based on a study of a scrapbook which Doctor Reese left to his son, G. G. Reese, of Yuma, Arizona.

This writer makes no claims as a philosopher; however, "Daddy" Reese was a philosopher of great depth — and charming wit, without a trace of cynicism. It is a real education to pore over the crumbling yellowed pages of his scrapbook, read his letters, poems, excerpts and notes of scientific meetings, and his comments thereon. One can even read poems of love, addressed to his wife, written in his clean, bold type of handwriting, without blushing or feeling that he is intruding in the intimate privacy of this man's life. Indeed, — a doctor reading and studying this scrapbook, would invariably be left with a soaring sense of re-dedication to the unselfish idealism he had as a young novice, and a sense of shame for having descended to the level of idolatrous worship of money and power.

Here are the written words and poetry of a man who was kind to everyone without thought of reward. He was infinitely gentle and thoughtful of the feelings of others — a true gentleman. He was skillful in the art of medicine, surgery and obstetrics. He was blessed with simple, humble piety, and was a tireless medical missionary, who directed the Mexican Missionary Hospital in Bisbee, Arizona, in 1920 thru 1925. In fact, he gave up a job with the Calumet and Arizona Mining Company in Bisbee, Arizona, which he had held since 1907, and which paid him a salary of $700.00 a month, to assume the job as director of the Mexican Missionary Hospital at $150.00 a month. In a letter of May 1, 1923, to the Board of Home Missions of the Presbyterian Church, New York, he complained, "I sometimes wonder if the Board has employed me to make reports, or heal the sick and teach the Gospel."

He decried the Mexican practice of worship of saints as "nothing less than idolatry." In writing of the Mission's work, he stated, "We heartily approve and encourage every move that the Mexican people make for the betterment of their own race. They need every encouragement, for they are like children in many ways. I wish I could show the Mexican as he really is in

his home, in his religion and in his social life."

He wrote interesting accounts of Lucia Borgas, a Mexican girl, who was kidnapped by the Yaqui Indians, and of a little boy, Gerardo, who was "Lo mismo que un burro." (the same as a burro). Another interesting and possibly priceless item in his scrapbook, is an intact, though slightly faded copy of the Douglas Daily Dispatch of Sunday, August 5, 1906. This edition described a strike of 30,000 workers in St. Petersburg, Russia, and beginning revolutionary activities, as well as the prediction that the Stalypen cabinet would fall, and that Grand Duke Nicholas would be nominated to the Chief Command of all the troops in Russia. Another item – "Goldfield, Nevada, August 4. – Battling Nelson, through his lawyer today expressed a willingness to meet Joe Gans in a finish fight for $30,000 here on Labor Day. The money, now deposited in a local bank, will be posted in San Francisco tomorrow. Gans' acceptance is expected tomorrow." Another item of interest – "Saloons to be limited. Chicago to be permitted only one saloon for every 500 persons, etc."

In January, 1940, the Yuma County Medical Society honored the beloved colleague by having his portrait made, and having it hung in the Staff room of the Yuma County General Hospital. Dr. Reese's letter to Dr. John F. Stanley, then President of the Society is a beautiful masterpiece of humility and simple clarity. In the third paragraph, he wrote, "At the end of the year '39 when I wrote you a letter advising the Yuma County Medical Society that I am no longer able to practice medicine, my greatest hope of reward was that I might receive a letter from my fellow physicians giving me the promise that they will faithfully carry on the great work of healing the sick of every race, color or creed. I have that assurance in this fine letter of yours, and this high honor. What did I ever do to gain such a spot? I was "one of the least of these" among the M.D.'s of the State and County. I never knew before that we have a "Hall of Fame," but if we have, and you will add one picture every year, I will gladly do my part by posing for the photographer."

He loved to write poetry, and he had a book of his verses published. He also wrote such observations as "The Pledge of the Medical Missionary" in which he wrote, "Not on my own merit, for I have none, but surrendering my whole being to Divine Guidance, I will make my life count for much. By consecrated and faithful endeavor I will develop and maintain those qualities of mind and heart which will command the respect of all good men and the love of little children. As I journey down Life's pathway I will heal a few sick folk, for that happens to be my business; and I will point the way to the Cross to a few souls in the dark, that they may seek and find salvation; for that is a Christian duty. I will find joy in service, and will sing and laugh often, that I may not worry and be over-anxious about results. Throughout my entire existence on the earth planet I will strive to make the world a little better because I have passed this way. And when "I lay me down to sleep" may the memory of my life be an inspiration to all those who are poor in this world's goods, but rich in things eternal. So might it be." – Harry A. Reese, M.D.

On the same page, there is a letter from the late Dr. E. Payne Palmer, notifying Dr. Reese that he "did himself proud," and "made the highest average" in the recent (State Board) examinations. It was dated January 18, 1908.

In a letter to the Yuma County Medical Society in 1939, announcing his intention to retire from active practice, he told of his beginning the study of anatomy in a praeceptor's office in Salina, Kansas in 1892, and of his graduation from the Marion Sims College of Medicine in St. Louis in 1896. Copies of his radio talks on "Heredity and Babies" and "Heredity and Habits" given in June, 1932, and which contain much homespun common sense are also found in the scrapbook; as well as his first printed prescription blank inscribed "Take to H. L. Irwin and Company, Prescription druggists, Hope, Kansas." This was his first location in the practice of medicine, and the year was 1897. A letter of April 3, 1914, shows that he enclosed payment and ordered Bibles printed in Spanish, for free distribution to his patients.

His notes, in longhand, taken at various medical scientific meetings are still legible, and very interesting. For example, "Importance of Sewer

Rental Laws" was a long and tiresome discussion of this subject by the Assistant Chief Engineer, Los Angeles County Sanitation Districts. 'Recent Epidemiological Trends in Childhood Tuberculosis' by Max Pinner, M.D., Desert Sanatorium, Tucson, will no doubt look good in print, but he failed to get the message over to me. This was not so, however, with the next speaker, Dr. John W. Flynn (father of our own Robert Flynn, M.D., Phoenix) who presented the subject entitled "The Diagnosis of Active Tuberculosis in childhood." Dr. Flynn has a good voice and speaks distinctly. He spoke of the importance of (1) History, (2nd) Skin Test and (3rd) X-Ray. This does not mean that he has thrown away his stethoscope. He knows the chest."

Dr. Reese served as president of the Yuma Charity Association from its inception in 1926 to 1930. He was very active in many civic affairs as well as serving as Director of the Health Unit, instituting many public health reforms.

Some of his poems found in the scrapbook are titled:

"Looking Ahead with Arizona."
"Lindberg's Complaint" (on the kidnap-murder of his son)
"A Red Cross Hymn."
"Let Me Paint Your Window."
"The Man Who Is Down and Out."
"Farther On."
"That Frog Escaped from the Burning Sands."
"Boulder Dam."
"That Salome Frog."
"That Yuma Frog."
"Pal of Mine." (To his wife)
"The Enemy."
"I had a Friend."

In his paper, "Conservative Obstetrics," read before the 34th Annual Meeting of the Arizona Medical Association in 1925, he gave forth with wisdom that still bears re-reading, even by some of us sophisticated, "enlightened" practioners. I quote a particularly pithy portion of his talk. "Do not be an extremist. Do not be a conservative. But be awake, and alert, and of real assistance to the parturient woman. Ease her pain, shorten her labor if unduly prolonged, assist her when she needs help, protect her against infections, lacerations and hemorrhage. Earn your fee, or turn the case over to a Mexican mid-wife who hangs a picture of a "Saint" on the wall, and dances about the room, and bows, and sings."

His scrapbook also contains the certificate of membership in the Order of De Molay, issued to his grandson, Jerry Irwin Reese. Imagine the heart-filling pride of the man in his beloved family! Nowadays, we are too prone to be blase about these things.

An editorial in the July 31, 1936 issue of the Yuma Evening Herald praised him as "An official of Real Merit."

His son, G. G. Reese, of Yuma, was kind to offer to let me read the letters of his father. These were addressed to his sons and contain a wealth of folksy wisdom and stories of Dr. Reese's own youth. He told of his parents' troubles with Indians in Kansas; his frail build, his "log house" home on Gypsum Creek, Saline County, Kansas; how he tried to ride on the back of a big dog, and fell off, breaking his arm. He instructed his grandchildren (in a letter), "Now take your Bible and find the 91st Psalm and read it and repeat the last verse. That's it!" He told of his marriage on September 5, 1894, and that the wedding supper cost his father-in-law five turkeys and fifty bushels of wheat. He told of his first, and only, chew of tobacco at the age of eight years, and how he "nearly died" from the effects. Also, he related about the one year of preceptorship he served with a Doctor Harvey before he enrolled in medical school. He had previously taken a teacher's course at Salina Normal University, and then taught school at Mount Tabor and later at his Alma Mater, Salina Normal University. It was here that he met Jennie Shultz, a pupil, who eventually became his wife.

His was a life, brim-full of love, for his wife, his family, his church and his fellow man; a life of untiring service, skilled and bountiful. I can briefly summarize his story by saying, "He was the kind of man I would like to be."

"Men are created that they may live for each other, teach them to be better, or bear with them as they are." — Marcus Aurelius.

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T.C.C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]
8. Duncan, G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.

Medical Society of the United States and Mexico

Resume, 1960 Annual Meeting

The 5th Annual Meeting of the Medical Society of The United States and Mexico took place in Guadalajara, Jalisco, Mexico November 8th, 9th and 10th and in Mazatlan, Sinaloa, Mexico November 12th. The traditional "break the ice" party was held the evening of November 8th at the French Circle in Guadalajara and was very well attended by both American and Mexican members. Refreshments were served and dancing was made possible by a rather large orchestral group. Registration also took place at that session for most of the members attending.

The following morning a solemn inaugural ceremony was held at the "Casa de la Cultura Jalisciense." The local military band not only provided the background music but also played the national anthem of both countries at the conclusion of the inaugural speeches. These were given by Dr. Ignacio Chavez, incoming president, of Guadalajara, and Dr. W. R. Manning of Tucson, the outgoing president of our Medical Society of The United States and Mexico. A welcoming speech was also made by the Hon. Juan Gil Preciado, the Governor of the State of Jalisco, officially declaring the meeting inaugurated. Others present were the Hon. Adolph B. Horn, the General Consul of the United States in Guadalajara, Dr. Juan J. Menchaca, Mayor of the city and Dr. Roberto Mendiola Orta, President of the University of Guadalajara. Of particular interest was the context of Dr. Manning's speech touching on the basic issues pertaining to the survival, success and progress of this organization. Dr. Manning emphasized the importance of the activities of a medical and paramedical nature which this organization should launch, or at least endorse. He also remarked on the necessity for a more personal type of relationship between the Mexican and American members in both the social and scientific sessions of this Society.

The members then proceeded to attend the scientific session which was held at the same locale. The papers given that morning were as follows: Dr. Lester R. Dragstedt on peptic ulcer. Dr. Juan Lopez on teflon prosthesis of the aortic arch. Dr. F. Landeen described modifications of the method for caudal blocks. Dr. Delfino Gallo spoke on cecal appendix and its use in ureteroplasty. Dr. Walter Stevenson spoke on the differential diagnosis of acute red eye. Dr. Harry Steelman presented a film on the surgery of epilepsy and Dr. Mario Paredes gave a talk on thyroid physiopathology. Dr. G. H. Taber spoke on supracondylar fractures of the humerus in children and a method of treatment. That con-

cluded the morning session for November 9th, 1960 in Guadalajara.

The following morning Dr. John E. Scarff spoke on hydrocephalus and its treatment, followed by Dr. E. Contreras Reyna and Dr. Orozco de la Torre who delivered a paper on transoperatory cholangiography. Dr. Maxwell Lockie spoke on the current treatment of rheumatoid arthritis and gout. The paper by Dr. Clarence Salsbury was read by Dr. Juan E. Fonseca and was entitled, "What should we expect from Public Health in the Sixties." Dr. Harry Thompson spoke on the diagnosis and treatment of systemic lupus and Dr. Trinidad Pulido spoke on arterial trauma. A paper by Dr. Harry P. Limbacher on poisonous stings in the southwestern United States was read by Dr. Hiram Cochran. Dr. Jose Guerrero Santos of Guadalajara spoke on recent advances in facial plastic surgery.

On the morning of November 12th, 1960 the scientific sessions were continued in Mazatlan at the Hotel Belmar where Dr. Francisco Comesana spoke on antimetabolites and antibiotics. Dr. Gallo gave another paper on special techniques for the repair of recto-vaginal fistulas.

The social events, aside from the "break the ice" party and the inaugural session described above, consisted of a dinner on the 9th of November at the Casino Guadalajara and a night session at the Club Atlas entitled "Noce Tapatia" where folk dancing and cock fighting held the members entranced. On the evening of November the 10th there was a reception at the Governor's Palace for the members at which most of us had the opportunity of meeting the Governor and his wife personally. A formal dance was held the evening of November 10th, at the Casino Agua Azul, again with a display of typical costumes etc. In Mazatlan the social sessions consisted of a dinner at the Casino Mazatlan on the 12th of November and a dinner dance that evening at the Hotel Belmar.

As usual, most of us from the American side were overwhelmed by the hospitality of both places and were greatly impressed with the caliber of the scientific contributions.

At the business session held at Mazatlan on the morning of November 12th officers were elected as follows:

President: Dr. Ignacio Chavez

President Elect: Dr. Juan E. Fonseca

Vice President: Dr. Eduardo Contreras Reyna

Mexican Secretary: Dr. F. Zeron Medina

American Secretary: Dr. Miguel Carreras

Mexican Treasurer: Dr. Gonzalez Murguia

American Treasurer: Dr. Robert Hastings

The Steering Committee, whose five year term expired at this time, was re-elected for an additional term of five years. Its members are: Dr. Harry E. Thompson, Dr. Hector Gonzalez Guevara, Dr. Ignacio Chavez and Dr. W. R. Manning.

No decision was taken at that time regarding the location or time of the next annual meeting. It was decided, however, to have a meeting of the Board of Directors in Hermosillo to make this decision and also to enlist the co-operation and interest of the members of Sonora who had failed to attend the Guadalajara meeting. This meeting was held in Hermosillo at the Gandara Hotel on February 18th at which time it was decided to hold the next annual meeting in Hermosillo on December 6th, 7th and 8th, 1961. It was also decided to attempt to hold a regional meeting in Culiacan sometime in the early summer of 1961 to which effect one of our members in Culiacan has been contacted and favorable reports have already been received.

The idea of the regional meetings is to expand the membership in the society geographically into other regions of Mexico, these sessions being held during the year between successive annual meetings, with a scientific program of minimal proportions and one or two guest speakers from either country participating. At the present time the Society is engaged in investigating the matter of the Educational Council for Foreign Medical Graduates as it affects the Mexican physicians who wish to come to the United States. On behalf of the Society the basic proposal has been made to the council concerning the possibility of establishing a category of clinical clerks, or observers, for foreign positions who could be given an intensive course of training in language and medicine in this country prior to the ECFMG examination. The Council has promised to study the matter further.

Several papers given in Guadalajara and Mazatlan have been translated and are scheduled for publication in *Arizona Medicine* in subsequent months.

Juan E. Fonseca, M.D.

The casual atmosphere
of Camelback Hospital
is one of relaxed Western living.
Looking east, Camelback Mountain provides the background
for the lovely lawn and grove area.
The natural beauty of the surroundings at Camelback Hospital
creates, for the patient,
a restful, scenic setting.

Camelback Hospita

5055 North 34th Str
AMherst 4-4
PHOENIX, ARIZO
OTTO L. BENDHEIM, M.D., F.A.P.A., Medical Direc

Located in the heart of the beautiful Phoenix citrus area near picturesque Camelback Mountain, the hospital is dedicated exclusively to the treatment of psychiatric and psychosomatic disorders, including alcoholism.

The President's Page

The Political Doctor

The President's Annual Report to The House of Delegates of The Arizona Medical Association, Inc. April 26, 1961

Mr. Speaker, Members of the House:

Lindsay E. Beaton, M.D.

It is altogether fitting that the incoming President of this Association give his inaugural address to a general assembly of its members at the official opening ceremonies of the annual meeting. There he speaks to the entire society of his expectations and plans for the coming year and of his own overview of the medical scene, regional and national. It is equally appropriate that the final accounting by the outgoing President of his year in office be traditionally presented to this House. Here he stands for the last time, before his peers in the leadership of the Association. Here he is privileged to face a gathering of the prime movers of the Association's business – the Delegates, the District Directors, the Officers, and the committee chairmen. Here he can talk directly, out of the full gratitude of his heart, to the men he has worked with for the past twelve months, the men whose labors have fashioned whatever reputation for accomplishment may have been credited to him.

The President's summary of his term of responsibility cannot be a detailed description of the actions taken by the society since the last convocation of the House. Such a review is the prerogative and obligation of the Officers, the District Directors, and particularly the Committees and Subcommittees, major and minor. It must be understood by any Arizona physician interested in the conduct of his Association's affairs, as certainly every Delegate should be, that they are managed, not by a prelacy, but by a group of presbyteries, that this is government by committee. The Board of Directors is charged, in the interim between sessions of the House, with the authority and control of the society; it is in essence the decision-making committee. Every other committee, from the smallest subcommittee up to the Executive Committee, is charged with the exploration of problems falling within its scope, the creation of solutions or the preparation of alternative recommendations, and the formulation of concrete strategy and tactics. In brief, the initiation of policy begins at the grass roots of the committees, whose members are selected with care as deputies of the various sectors of the profession throughout the state. My résumé is by contrast a panoramic sweep over the whole field of the general direction that the Arizona Medical Association has taken in 1960-61. It is a bird's-eye prospect. And, after a year with a psychiatrist at the helm, I suspect that some of you will be muttering: what a bird! It is also a long-awaited opportunity to bestow some well-earned kudos. The committees of this Association have without exception performed capably and faithfully during the period of my administration; some of them have executed the engagements

laid upon them with great imagination and true brilliance.

Each new year is, of course, the most progressive and fruitful the Association has experienced. It is entirely seemly that every President look back on his tenancy of the rank with this sense of pride in the accomplishments of his colleagues. I think this has been an exciting year, in large part because we live in an era of revolutionary change in every aspect of man's social existence. Goethe once said: "I had the advantage of being born at a time when the world was agitated by great movements, which have continued during my long life. Thus I have attained results and insights impossible to those who must learn all these things from books." This is exactly the stimulation that also drives us, who live in the most crucial of all mankind's centuries. The stir is communicated to medicine and demands original patterns of thought and new searches for answers to the multiplying perplexities that confront us. The ultimatum has been delivered to you and me, who have been chosen by our confreres to guide medicine into its future. While we can never be pressured into any craven abjuration of the principles and standards of a profession, at the same time we cannot stand pat on the hand dealt by the past. We must welcome the challenge.

If it is proper that a President proudly identify himself with the Association's achievements, it is also healthy that he recognize that they were not largely of his doing, that he has bobbed forward on the swelling tide of the society's growth. It is also chastening to his ego to foresee that the attainments of the year ahead will inescapably surpass those of his term, as he most unreservedly expects and trusts they will. Finally, pleased as he may be with medicine's current vision on the questions of the day, he must have the perspective to remember that even a dwarf will see far if he mounts the shoulders of a giant. My predecessors have been giants.

The accomplishments of the Association in 1960-61 you have read in the specific presentations of the various committees, and you have heard in the masterful digest prepared by the skilled Chairman of the Committee on Reports. I would only call your attention to the outstanding furtherance of our professional and scientific mission through the exertions of the Professional Committee and the Professional Liaison Committee. John Schwartzmann and Noel Smith deserve the special applause of this House. Our educational function is principally fulfilled by the scientific sessions of the convention, and this year has been gratifyingly bounded by two magnificent gatherings of medical talent. Perhaps the most remarkable success of 1960-61 has been our venture in publishing *Arizona Medicine*, which is fast becoming one of the nation's leading State Medical Society periodicals. This triumph must be principally assigned to one man, Darwin Neubauer, a genuinely gifted editor, with a rare combination of literary and scientific judgment, business acumen, and the sturdy courage required to maintain a journal of opinion, with its columns open to all comers and all pertinent controversies. I could not exaggerate the debt this Association owes him.

We have attempted this year increasingly to make known our stands on socio-economic matters of medical significance, with both advances and failures. On the national scene we have open avenues of communication with our Congressional and Senatorial delegations, even with those who may not always visualize the urgencies as we do, and with Arizona's first cabinet member, the new Secretary of Interior. The State executive branch has been most receptive in granting audience to representatives of the Association, and the Governor has pledged to consult us for recommendations on the appointment of physicians for any boards or commissions and to accept our first choice in any instance where the statute commands that the society shall provide a panel of nominees. Furthermore, he has honored his promise in practice. Our record with the State Legislature is less glowing, and we need to prevail more forcefully in the future. Despite herculean efforts on the part of Jesse Hamer and his cohorts of the Legislative Committee and the Executive Staff, only two bills passed in which we had a primary interest – one revamping certain provisions of the Medical Practice Act and one authorizing a new State tuberculosis hospital. Other bills died in committee for reasons well-known, in fact substantially available to anyone who could brave the nausea attendant on reading newspaper accounts of the shenanigans of the last session. However, one fails to see how the prejudices, short-sightedness, and emotional immaturity of Arizona's legislators can fairly be laid at the door of this

Association.

In the medico-economic sphere an encouraging beginning has been made by the Professional Committee toward a comprehensive scheme for providing care for all of the medically indigent in the State, through a system of private practice, underwriten by insurance, and utilizing the funds now being spent, and often squandered, on county and other public health programs. In the meantime, it has not seemed profitable to dissipate our energies on an attempt at State implementation of the Kerr-Mills bill, in view of the complete disinterest and apathetic lack of concurrence on the part of the Department of Public Welfare, and in view of the uncertain outlook for national legislation dealing with the distribution of health services. Our public relations effort has been similarly curbed, until AMA has framed its approach and until we know if some fresh departure is to be tried or if we are to sell ourselves to the public by commercial advertisement. Soon we must, in Arizona, determine on a continuing public education activity, both in our own interest and more importantly in the interest of our fellow citizens.

Lastly, this year has been marked by the usual evolution of our organizational practices, the modifications that are inevitable in the development of a major corporation, as this Association has become. Space requirements have made it necessary to move our Central Office to quarters in Scottsdale; a new bookkeeping and auditing system has been instituted under our able Treasurer, Arthur Dudley; our fiscal year is being changed to correspond to the calendar year; the Loan Fund has been put under bank management; and our liaison with and assistance to the Board of Medical Examiners are constantly growing. It has been necessary to formalize the channels of procedure and the levels of responsibility in the society. All subcommittees now transmit their recommendations to the major committees, which in turn report to the Board of Directors. An Executive Committee has been introduced to handle routine business and prepare alternative plans in disputed matters, so as to spare the Board for its vital assignment of final decision. It is now understood that only the President or his designated spokesman will be the public source of official policy, while only the Secretary will direct the staff in conduct of the day by day business of the Central Office.

In all of this essential housekeeping, the Chairman of the Board, Clarence Yount, and the President-Elect, Leslie Smith, have been indispensable to me. Dr. Smith has undertaken a double role, accepting the position of Acting Secretary, when illness deprived us of the valuable counsel of Lorel Stapley. Both Dr. Yount and Dr. Smith have served me steadfastly and you with high devotion. Our relationships with AMA remain close, thanks to years of collaboration with the parent body by our Executive Secretary and our Delegate, Jesse Hamer. We have not hesitated, however, to stand at variance, when items of contention have arisen. Criticism is not lack of faith. As J. B. Priestly wrote in "Rain Upon Godshill" about the true patriot's attitude toward his country, "We should behave as women behave toward the men they love. A loving wife will do anything for her husband except to stop criticizing and trying to improve him."

The President's personal duties can be briefly particularized. I have not routinely attended committee meetings, other than those of the Board of Directors and the Executive Committee; it is my conviction that committee work is more productive when it is not stifled by opinions from the persons who are responsible for ultimate decision. I have nevertheless gone to 27 meetings, and I have made 45 ritual appearances of one sort or another. These have included such diverse chores as being master of ceremonies at a social agency banquet, waiting on the Governor and the Attorney-General, talking to newspaper representatives, attending committees of the Legislature, entertaining visiting dignitaries, going to AMA conferences, speaking before business groups, introducing eminent lecturers, dedicating new hospitals, giving speeches of welcome at medical meetings, haranguing County Medical Societies, addressing students and faculty at both high schools and Universities, orating at luncheon clubs, showing myself on television, and more that I care not to recall. The list I give you, not as a boastful tally, but rather in a spirit of rueful, retrospective horror. Nonetheless it is a requisite part of the job and often a pleasant one, for the President of the Arizona Medical Association is received everywhere with uniform respect and cordiality — not for himself but as the voice of the physicians of the State. Voice and stomach I may say, after having been on the roast beef and martini cir-

cuit this long. Your President needs more than anything a durable digestive tract and a willing larynx.

No President can close his year without an expression of the deepest personal gratitude to our Executives, Robert Carpenter and Paul Boykin, and to our highly efficient and equally decorative secretarial staff. I do not know what the doctors of Arizona have done to deserve Bob Carpenter; no body of men has ever been served so efficiently and so staunchly. There has never ben anyone like him, and there never will be again. This Association would not be half what it is without him. For myself I can only say that my job would have been insupportable without the expert knowledge and wisdom of Bob Carpenter, your servant and my friend. Let me also pay an overdue tribute to our attorney, Edward Jacobson. No medical association has access to better legal advice than we do. Someone once asked what Arthur Goldberg, now Secretary of Labor, then general counsel of the AFL-CIO, did for George Meany. The answer was: he thinks for him. Bud Jacobson thinks for us, in areas where we are the laymen. But even more – he adds to his anxious superintendence of our corporate transactions a very real affection for the doctors of Arizona. I can at least assure him that the feeling is returned unstintingly.

Most of all I want to express my appreciation to you, the men who spend their time and substance on behalf of organized medicine. For purposes of publication in *Arizona Medicine* I have entitled this address "The Political Doctor", referring both to my role and to yours. The designation would, I know, be used by some in disparagement. To me it is one of esteem. The house of medicine has many mansions; there is place in it for the general man and the specialist, the private practitioner and the academician, the investigator and the administrator. There is a place of honor in it for the physician who adds to his other concerns the politics of medicine. Politics is the practical social science by which solutions are devised for the urgent needs of mankind. All the research discoveries of the laboratory, all the advances in practice, all the modernization of the health sciences would never reach the sick if medical politicians did not work unflaggingly at the framework through which they are made accessible to the public. In Arizona the men who are the bellwethers on the executive side of medicine are happily also counted among the leaders in clinical and scientific medicine. If one conclusion has been pressed home to me this year it has been my persuasion that there are many physicians in this Association who would make a national mark, if only they were active in a wider sphere. Beardsley Ruml once offered the opinion that reputation depended as much on a man's arena of operation as on his ability. I do not wish to infer that I have before me, in the familiar words of Thomas Gray's "Elegy Written in a Country Church Yard," a collection of "mute inglorious Miltons" or "guiltless Cromwells". But I do want to express the hope that you will not only continue your activity on behalf of medicine in Arizona but will extend your scope into national fields or into other, non-medical areas. Meanwhile, of all the doctors of the State, I salute you first.

I hope the retiring President may be allowed a final moment of sentiment. I used to smile – a knowing, psychiatrist's sort of a smile – when I read of statemen who avowed that their lives were bound to and had taken meaning from the assemblies in which they had long sat. One remembers such remarks from Edmund Burke and Daniel Webster, Sam Rayburn and Winston Churchill. I do not smile now, for in a small way I have come to know what they mean. My own thoughts have been increasingly devoted to this House for ten years – two as a delegate, five as its Speaker, one each in ascending the chairs of executive office. I unabashedly love this House, its ways and its atmosphere, its parliamentary manners and its memorable speeches, its traditions and its companionship. And now I can, at last, thank its members, from down deep in my heart, for the gift they have given me, this year as President of our Association, the most rewarding experience of my professional life.

72% of the total population and 49% of those over 65 today have voluntary health insurance.

(from AMA's publication, "The Cost of Medical Care")

BAYER

BAYER

1¼ Grs. Ea.
FLAVORED

Living up to a family tradition

There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the uniformity, potency and purity of Bayer Aspirin, the world's first aspirin.

And like Bayer Aspirin, Bayer Aspirin for Children is quality controlled. No other maker submits aspirin to such thorough quality controls as does Bayer. This assures uniform excellence in both forms of Bayer Aspirin.

You can depend on Bayer Aspirin for Children for it has been conscientiously formulated to be the best tasting aspirin ever made and to live up to the Bayer family tradition of providing the finest aspirin the world has ever known.

Bayer Aspirin for Children—1¼ grain flavored tablets—Supplied in bottles of 50.

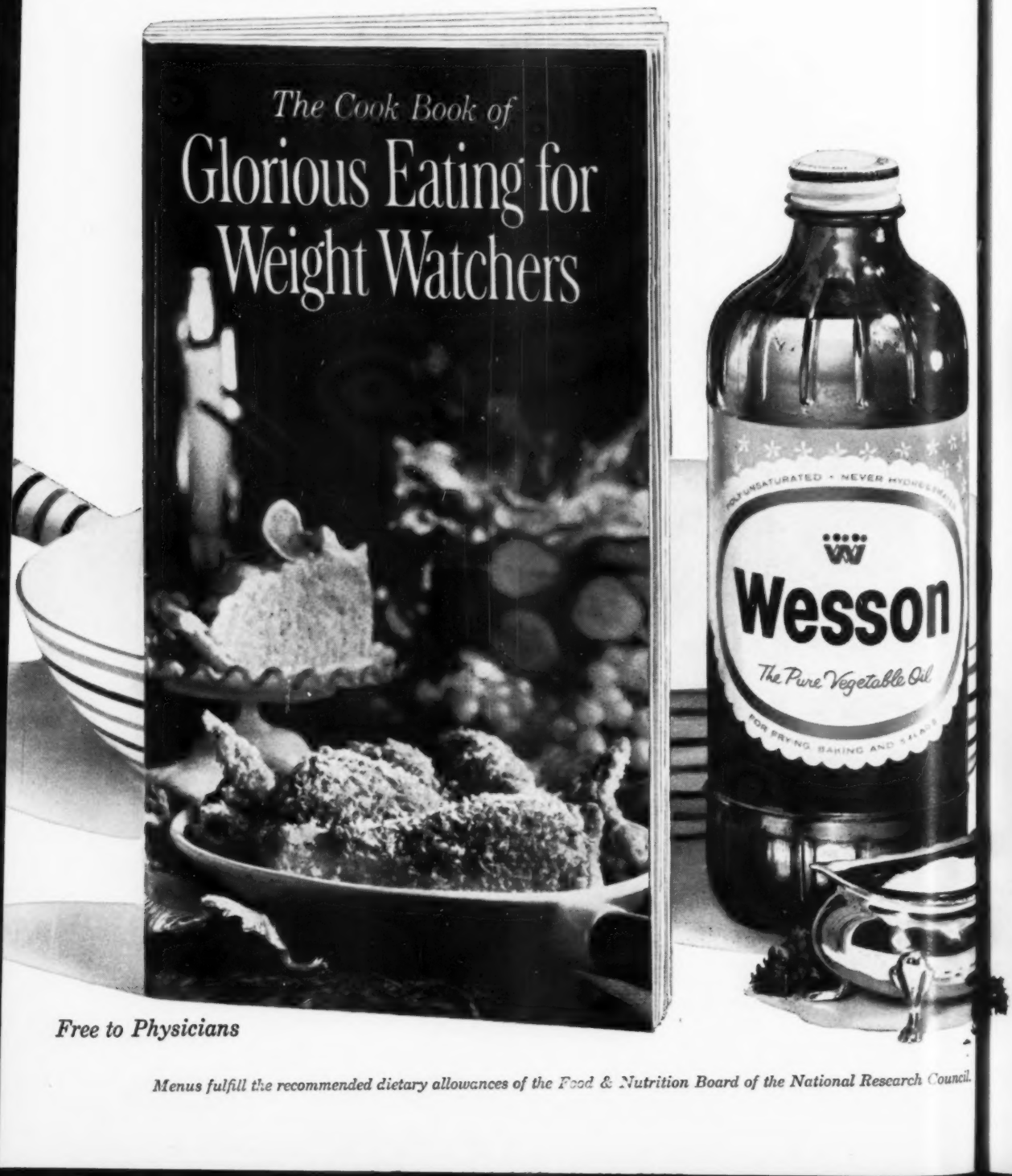
• We welcome your requests for samples on Bayer Aspirin and Flavored Bayer Aspirin for Children.

New GRIP-TIGHT CAP for Children's Greater Protection

THE BAYER COMPANY, DIVISION OF STERLING DRUG INC., 1450 BROADWAY, NEW YORK 18, N. Y.

A REALISTIC AID TO PROPER WEIGHT MAINTENANCE

At Last...New Cook Book Designed to



Free to Physicians

Menus fulfill the recommended dietary allowances of the Food & Nutrition Board of the National Research Council.

ne to Prevent Overweight Through Better Eating Habits

Recipes and Menus with Satiety and Appetite Appeal in Mind

The Cook Book of Glorious Eating for Weight Watchers fills the long-felt need for a weight control plan that is workable for everybody in the family. Realistic regimens are built around good, natural, readily-available foods enhanced by delicious methods of preparation. In place of "fad diets" or tasteless formulas, it provides for truly appetizing meals. It teaches and encourages the development of the healthful eating habits that can prevent overweight, America's #1 Health Problem. This full-color cook book contains 100 pages—248 delicious recipes each with calorie counts. Complete menus are here at 3 calorie levels—1200, 1800, 2600. Calorie levels are related to *best* weights by sex, age, size and extent of activity.

Many diets fail because they are crash programs only temporary in effect. Other diets are unbearable because they are monotonous and tasteless.

The Wesson way is not a crash program. It offers calorie controlled menus with appetite appeal, variety and satiety in mind. They fulfill the recommended dietary allowances of the Food & Nutrition Board of the National Research Council.

All menus provide the proper amount of protein, carbohydrates, fat and the other essential nutrients. The principles of good nutrition are included to help the homemaker plan her own properly balanced, calorie controlled menus. With simple subtractions or additions to the same basic menu, each family member can be served delicious satisfying menus according to his individual needs.

Not a reducing manual. It should be explained that "The Cook Book of Glorious Eating for Weight Watchers" is a guide to the *prevention of obesity.* Its publication marks the first time that a food manufacturer like Wesson has taken so important a step to help combat this serious public health problem.

Copies for physicians. "The Cook Book of Glorious Eating for Weight Watchers" is being offered to the general public. If you would like a copy for yourself, together with forms to enable patients to obtain their own copies, please fill in coupon below.

Note: *Please do not confuse this booklet with the Cholesterol Depressant Diet Book, published by Wesson as an aid to physicians and* for professional distribution only. *The concept of the Cholesterol Depressant Diet Book stems from Wesson's value in cholesterol depressant diets. Where a vegetable (salad) oil is medically recommended for a cholesterol depressant regimen, poly-unsaturated Wesson is unsurpassed by any readily available brand.*

The Wesson People, Dept. M, 210 Baronne St., New Orleans 12, La.

Please send me my copy of "The Cook Book of Glorious Eating for Weight Watchers", plus two dozen order blanks for distribution to my patients.

_____ M.D.

ADDRESS _____

CITY, ZONE, STATE _____

Poly-unsaturated **Wesson,** *the Pure Vegetable Oil, is Never Hydrogenated*

Editorials

Doctors In Court

More and more the courts require the appearance of physicians as expert medical witnesses. The psychiatrist is called almost weekly to testify to sanity hearings, juvenile or criminal cases. The orthopaedist is required to detail his treatment and prognosis in the litigation that seems to follow every automobile accident. The surgeon and the general practitioner can expect to be examined and cross-examined on as widely varied a number of matters as they have patients. Often, in contested cases, both sides will accept the testimony of a reputable physician, but in many cases each side feels the necessity to call its own experts, thus increasing the burden on the medical profession.

Although the courts, at least in Arizona, bend every effort to get the doctor in and out of the courtroom as quickly as possible, nevertheless

ARIZONA MEDICINE

Journal of

The ARIZONA MEDICAL ASSOCIATION, Inc.
AND
MEDICAL SOCIETY OF THE
UNITED STATES AND MEXICO

ADVERTISING AND SUBSCRIPTION OFFICES
Paul R. Boykin, Business Manager
4533 North Scottsdale Road, Suite 211, Scottsdale, Arizona
Eastern Representative
A. J. Jackson, President
State Medical Journal Advertising Bureau
510 N. Dearborn St., Chicago 10, Illinois

VOL. 18 MAY NO. 5

CONTRIBUTIONS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules should be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English or Spanish, especially with regard to construction, diction, spelling and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Exclusive Publication — Articles are accept for publication on condition that they are contributed solely to the Journal. Ordinarily contributors will be notified within 6[illegible] days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
7. Reprints will be supplied to the author at printing cost.

Editorials of **Arizona Medicine** are the opinions of the authors and do not necessarily represent the official stand of The Arizona Medical Association. The opinions of the Board of Directors may be sought in the published proceedings of that body.

the busy practitioner, who can ill afford to spare it, is required to spend a considerable amount of time in court.

Can this be avoided? Under our system it is doubtful. We are proud of our judicial system which guarantees to every person his day in court, and his right to present his case for determination by a jury of his peers. Implicit in this presentation is the right of the trier of the facts, whether it is judge or jury, to have the opportunity to see and hear the witness, and the right of both sides to have the opportunity to examine and cross-examine the witness.

The lawyer seeking to present the case of his client in the best possible light is never satisfied to present the medical picture by a written report, or to recite to the jury or court the findings of a medical board or committee. Suppose the medical issue to be determined, as is often the case, is whether the plaintiff has a permanent disability and, if so, of what extent. A question like this is not susceptible of a single answer like one in arithmetic. In law or medicine it is rare for anything to be all black or all white. It is the lawyer's job to develop in court the subtle shadings that support the contentions he advocates. This requires the witness' physical presence before the jury or court.

In Denmark, we are told, there is a state-appointed medico-legal council, paid a salary from public funds, which gives opinions to any litigant requesting them. The Council may be questioned by attorneys in advance, but their opinions are not challenged in court. This eliminates the appearance of the physician in the courtroom.

Besides the reasons suggested above, this system would be unworkable in this country. No lawyer or client would be satisfied with anything less than the best and, public servants being notoriously underpaid, it is obvious that the best would not be available at the salary offered.

Lastly, this would be one more step, would it not, in the direction of socialized medicine?

Robert S. Tullar
Attorney-at-Law
Tucson, Arizona

WHICH WAY?

The Editorial philosophies expressed in your Journal were challenged by A.J.B. under the title, "The Hornets Nest". The beliefs of A.J.B. are the antithesis of some of the Editorial Board.

A.J.B.'s censorious cynicism begins with the statement – "The Editorial pages of the September issue of 'ARIZONA MEDICINE' contained a peculiar hodge-podge of emotionalism and incompletely evaluated opinions, but with an undercurrent of good intentions." In support of his contention he quotes – "Desire it or not, there is a gradual socialization of the U.S. This can be prevented in medicine by governing ourselves". He comments "We cannot 'prevent' the trend of events (socialization) any more than King Canute could stop the tides." I feel that self discipline is paramount to self government and is the basic principal of our government. The author's (A.J.B.) apparent willingness to complacently passively accept the trend toward a Marxist's state is further exemplified by his statement – "It is a strange anachronism, this cry against Federal 'interference' in our medical life. We drive on Federal highways, we ues the Federal mails, we rely on our Federal (National) armed forces, we are proud of our Federal parks." Because we are proud of our Federal parks, would we all want to live in Federal housing? Because we use Federal mails, would we be pleased by Federal transportation? We rely on our armed forces and are proud of our service academies, but would we want Federal kindergardens?

Ours is a government of balanced powers, one in which both the majority and the minority are protected by the Republic concept, rather than rule by the will of the majority – the democratic concept. Our government, the most successful system ever evolved, assures equality and individual freedom under specified laws with help for those who cannot help themselves, and for all others, the maximum opportunity to help themselves. Ours is not, and should not become, one which because "we are proud of our Federal parks" we delegate all controls to the Federal government.

It is better that we guide our destinies by

knowledge gained by historical facts. We should be cognizant that historians have reminded us of the teachings of history as recently repeated by Harry T. Everingham – "History shows that man moves in cycles. As several great scholars have pointed out, the cycles go something like this: (1) People go from chains to spiritual faith. (2) With spiritual faith they gain courage. (3) With courage, they gain liberty. (4) With liberty, people produce abundance. (5) With abundance, they develop selfishness. (6) From selfishness, they go into complacency. (7) From complacency, they sink into apathy. (8) From apathy, they go into dependence. (9) From dependence, they go into bondage." With this knowledge should we with inaction acquiesce to a philosophy which is stated – "We cannot 'prevent' the trend of events (socialism) – " and thus allow the degradation of our society?

The quotation of A.J.B. of Rene J. Dubos to the effect that the control of cholera, water supplies, yellow fever, and industrial smokes was delegated to the government, infers that because this is good, all things should be thus transferred to Federal control. Mr. Dubos cites these as evidence of the need for further socialization of medicine. The control of the health problems of our nation must be patterned and adjusted to the basic precepts of our constitution. As in all other social endeavors, there are spheres of health problems which are best accomplished by centralized governmental control and also those spheres which are more effectual when reserved for the individual direction. The quotation from Rene J. Dubos fails to give medicine any credit for their prodigious studies and efforts in the control of cholera, tuberculosis, yellow fever, etc. Yes, Medicine has called for governmental control by legislation in each and every instance where such would be for the greatest good. The medical profession has been in the front line in the war to eradicate communicable as well as non-communicable diseases. It is the doctors of medicine who have been chiefly responsible for the enactment of legislation to control disease, legislation to raise the quality of medical education, and to increase and control the quality of medical care. Lord Bryce has correctly summarized the historical background of the medical profession in his statement "Medicine is the only profession that labors incessantly to destroy the reason for its own existence."

In spite of the "Science" report which attacked the AMA for their use of the Wiggins-Schoech survey of the medical status of the aged, if one restudies these authors' rebuttal (New York Times, October 2, 1960; AMA News, October 31, 1960) one is at once convinced that it was not " . . . dubious propaganda gimmicks" or "cheap tricks . . . " which should impair the integrity of our profession.

Although we acknowledge that there are some spheres of the health care which are rightly assigned to the Federal government, there are also many phases which will continue to be in the best interest of all if left in the individual domain.

This editor seems indeed to have stirred up a "hornet's nest" but it is my hope that the hornets are "mad" enough to sting the more complacent members of our profession into actively working to stem the tide toward socialized medicine – indeed socialism in general – before the time for action is past and our superior system for the practice of medicine deteriorates by governmental control as exemplified in other parts of the world.

Leslie B. Smith, M.D.

. . . call a fig a fig, a spade a spade

A recent issue of Today's Health magazine carries an extensive discussion of the hucksters of quack medicine and how they flourish because of the public gullibility and legal loopholes.

"Mechanical quackery is believed to make up a substantial portion of the $610 million or so paid to medical charlatans annually."

What action do we take as a society to oppose these? Little. We avoid that which might precipitate libelous action. It would be better to investigate, possibly at times through co-operation with the Public Health Department. Such inquiry should include the M.D. as well as the nonmedic. We must clean our own house. For while no one wants to throw the first stone, at times stones need to be thrown.

Darwin W. Neubauer, M.D.

STANDARDIZED FEE SCHEDULE

What is the opinion of the members of The Arizona Medical Association to the establishment of a published fee schedule, either a single schedule in dollars, the use of the unit system, or multiple schedules as now published by Blue Shield but extending beyond their present 80 Series?

Are we at fault in rejecting a fee schedule which has been so earnestly requested by the insurance companies as their only means of being able to supply satisfactory insurance coverage?

We encourage you to write this office and express your opinion.

Darwin W. Neubauer, M.D.

LETTERS TO THE EDITOR

Darwin W. Neubauer, M.D., Editor
Arizona Medicine
720 North Country Club Road
Tucson, Arizona

Dear Doctor Neubauer:

As a member of the Board of the Arizona Children's Colony, I would like to extend an invitation on behalf of the Board and its superintendent to Arizona physicians to personally visit the Children's Colony. This is located just east of Coolidge on the main road between Phoenix and Tucson. Drive to the main office and introduce yourself as an interested physician and ask for the superintendent. He or his representative will be happy to show you the Colony. When you have seen it, I would be most happy to have you write me and give me any suggestions or criticisms which you may have.

I believe the medical profession can do a great deal to further the care of the handicapped children in the state. Your knowledge of the available facility and its problems is one of the first steps. Physicians can do much in influencing lay opinion if they are informed.

Sincerely yours,

Hugh C. Thompson, M.D.

Editor
Arizona Medicine
1021 Central Towers
Phoenix, Arizona
Re: June 1960 – Vol. 17 No. 6
Arizona Poisoning Control Information Center
Gentlemen:

We read with interest the "toast vs. charcoal" article in the June, 1960 issue, and applaud your effort to spread the "gospel" of poisoning control via a regular column.

However, we would wonder in what circumstances you would want the family doctor to use "universal antidote", instead of or before calling you, and in what circumstances would you prescribe universal antidote? Our teaching is that:

1. In *all* poisonings the Control Center should be called (preferably by the family physician).
2. A professional must then decide whether the patient should be seen at a treatment facility.
3. The treatment facility either prescribes *nothing* or indicates the *specific* therapy.

The information needed for decisions regarding therapy can usually be obtained from the Public Health Service card file and numbered memo file, the text *Clinical Toxicology of Commercial Products,* The New England Journal of Medicine's, *Toxic Hazards,* Goodman and Gilman's *Pharmacologic Basis of Therapeutics,* recent medical literature, and the recorded experience of the local center. Rarely are other sources needed. Almost all textbooks about poisoning are inadequate for clinical use, and "first aid" sources are to be condemned.

Respectfully Yours,
FREDRIC B. ROTHMAN, M.D.
CHIEF RESIDENT PEDIATRICS

March 20, 1961
Darwin W. Neubauer, M.D.
Editor, ARIZONA MEDICINE
720 N. Country Club Road
Tucson, Arizona
Dear Mr. Neubauer:

We have received the letter from Dr. Frederic B. Rothman concerning the article entitled "Use

of Burned Toast as a Substitute for Activated Charcoal in the 'Universal Antidote' ", which appeared in *Arizona Medicine*, Vol. 17, No. 6, June, 1960.

First, it should be emphasized that the intent of this article was only to point out the fallacy of the use of burned toast as a substitute for activated charcoal in the treatment of poisoning and not to evaluate the use of activated charcoal or the universal antidote. It is well known that many reference sources suggest the use of these preparations in the treatment of certain poisonings. Since some of them state that burned toast is a satisfactory substitute for activated charcoal (e.g., Arena, J.M., Clinical Symposia, *12*:5, 1960, and "First Aid Textbook", The American National Red Cross, 4th edition, Doubleday & Co., Inc., Garden City, N.Y., 1957, p. 53), it seemed important to call attention to conclusive scientific evidence which proves this statement to be incorrect (Lehman, A. J., Quart, Bul. Assoc. Food & Drug Official of U.S., *21*:210, 1957).

We concur with Dr. Rothman that information needed for decisions regarding therapy in poisoning can often be obtained from such important reference sources as (1) the Public Health Service (National Clearinghouse for Poison Control Center's) card file; (2) Gleason, M. N., Gosselin, R. E., and Hodge, H. C., *Clinical Toxicology of Commercial Products;* (3) Goodman, L. and Gilman, A., *The Pharmacological Basis of Therapeutics*. Indeed, each of the 20 Arizona Poisoning Control Treatment Centers possesses the card file and the two textbooks. In answer to Dr. Rothman's question, " . . . in what circumstances would you prescribe universal antidote?", we would like to refer to the above references.

(1) Public Health Service (National Clearinghouse for Poison Control Center's) card file recommends the use of universal antidote or activated charcoal in the treatment of poisoning from any of the following 12 trade-name products:

1. ABSC Pills
2. Black Leaf 40
3. Imp Soap Spray
4. Killer Katz Mice Seed
5. Kilmice
6. Lee's Gizzard Capsule
7. Nicotrol
8. Nicotrox 10-X
9. O.K. Plant Spray
10. Senco Poison Canary Seed
11. Senco Poison Oat Kernels
12. Tendust

(2) Gleason, M. N., Gosselin, R. E., and Hodge, H. C., *Clinical Toxicology of Commercial Products* recommends the use of universal antidote in the treatment of poisonings from the following substances:

1. Amanita Toxins (see page 111)
2. Mercury (see page 154)
3. Nicotine (see page 161)
4. Pyrethrum (see page 170)
5. Salicylates (see page 173)
6. Strychnine (see page 177)

(3) Goodman, L. and Gilman, A., *The Pharmacological Basis of Therapeutics*, p. 1020, presents the following general statement concerning the use of activated charcoal (chief ingredient in universal antidote) in the treatment of poisoning: "Charcoal has a limited usefulness as an antidote in cases of poisoning, adsorbing the toxic substance and thus retarding its absorption until gastric lavage can be performed".

Finally, it is of interest to note that accompanying the tentative standards for poison control centers (accepted and approved at the annual meeting of the American Association of Poison Control Centers, Chicago, Illinois, October 18, 1960) is a list of recommended antidotes among which is the universal antidote suggested for the treatment of unknown poisons. Included in this list are animal charcoal, magnesium oxide, and tannic acid for the preparation of the universal antidote.

We hope that the above comments meet with your approval. Please inform us if we can be of any other assistance in this matter.

Sincerely yours,

Albert L. Picchioni, Ph.D.
Professor of Pharmacology and
Director, Arizona Poisoning Control Program
The University of Arizona

an added measure of protection for little patients

against relapse
against "problem" pathogens

DECLOMYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

pediatric drops
syrup

• full antibiotic activity • lower milligram intake per dose • up to 6 days' activity with 4 days' dosage • uniformly high, sustained peak activity ■ **syrup** (cherry-flavored), 75 mg./5 cc. tsp., bottles of 2 and 16 fl. oz. Dosage: 3 to 6 mg./lb./day—in four divided doses. **pediatric drops,** 60 mg./cc., 3 mg./drop, 10 cc. bottles with calibrated dropper. Dosage: 1 to 2 drops/lb./day—in four divided doses.

PRECAUTIONS: As with many other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs discontinue medication. Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics. The patient should be kept under observation.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

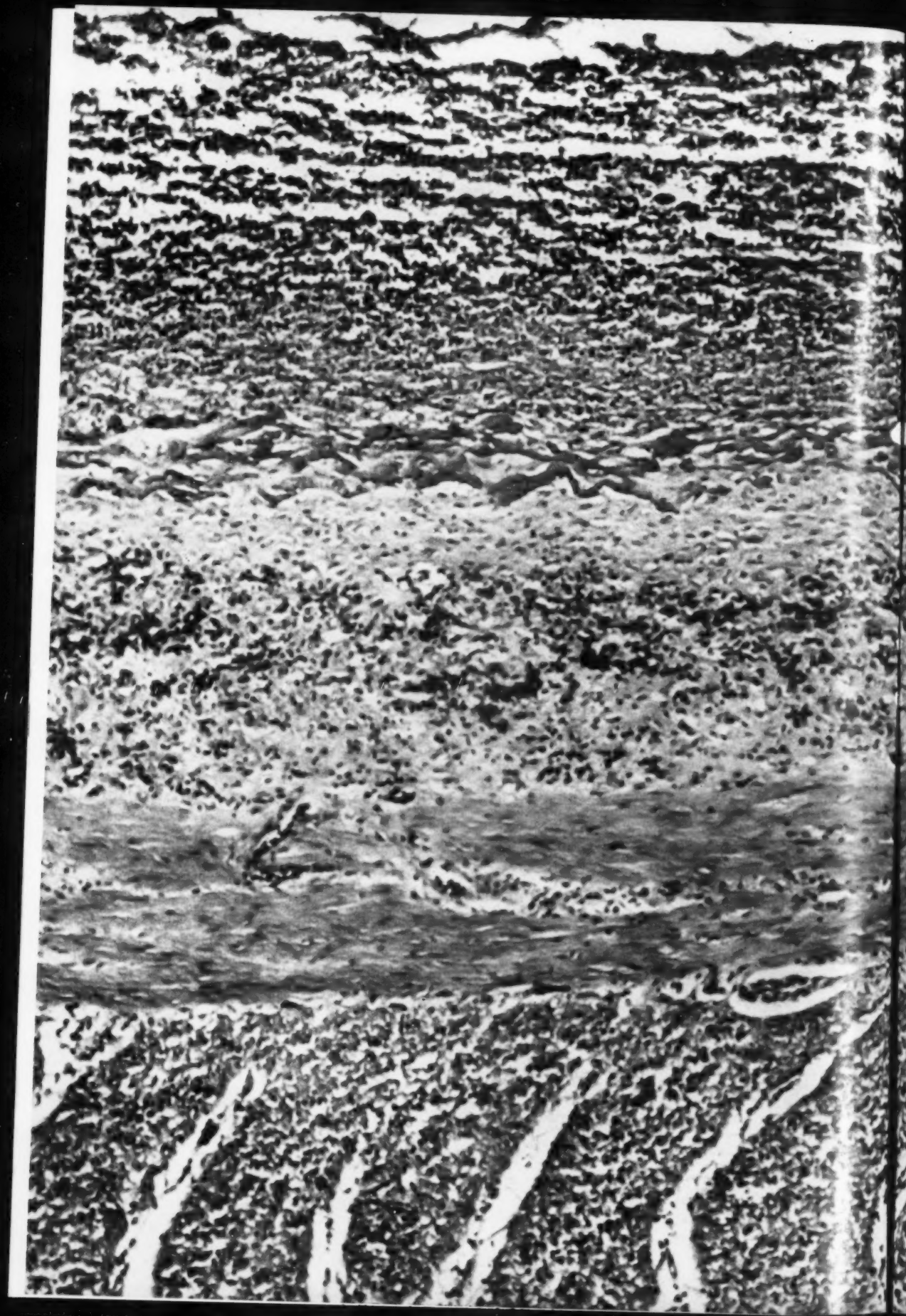
effective, palatable, economical

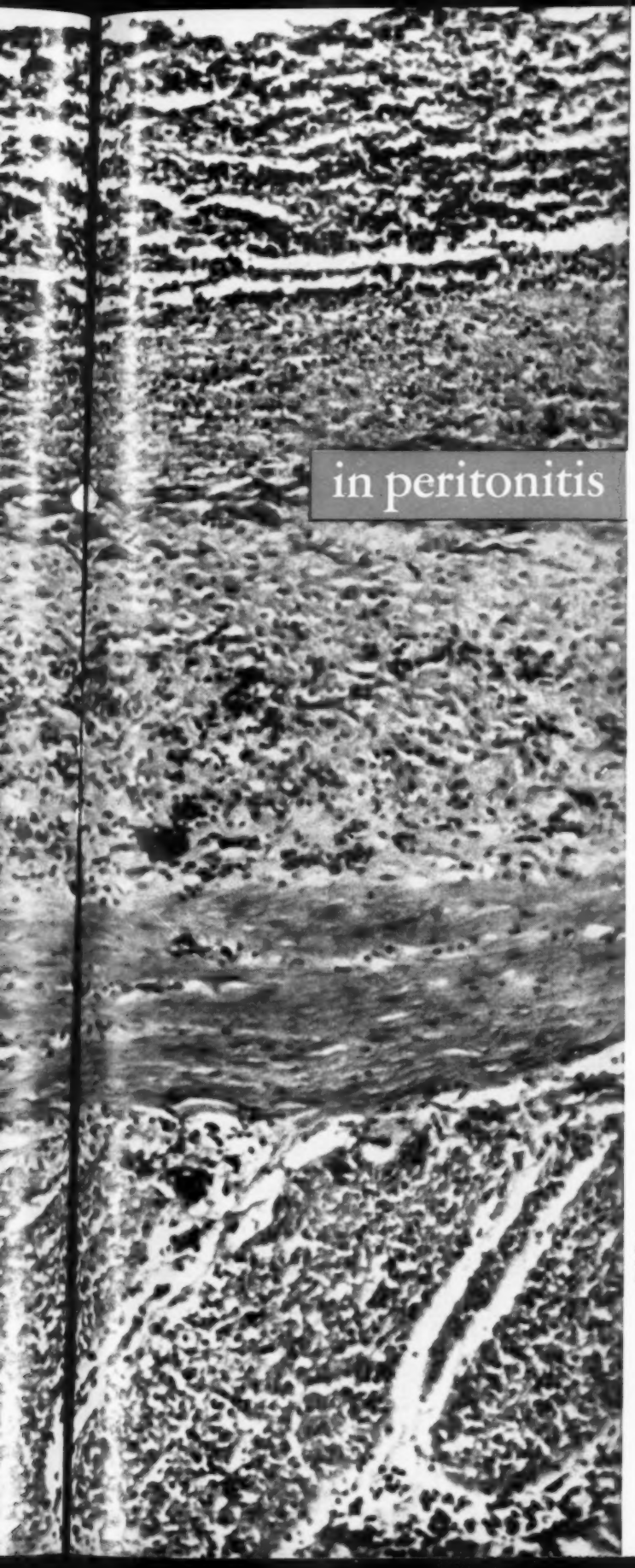
CREMOSUXIDINE®[SULFASUXIDINE®SUCCINYLSULFATHIAZOLE SUSPENSION WITH KAOLIN AND PECTIN] reduces fluidity of stools, reduces enteric bacteria, adsorbs toxins, and soothes the irritated intestinal mucosa.

Chocolate-mint flavored...readily accepted by patients of all ages.

Additional information on CREMOSUXIDINE is available to physicians on request.

MSD MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., WEST POINT, PA.





Therapeutic confidence

Panalba is effective against more than 30 commonly encountered pathogens including ubiquitous staphylococci. Right from the start, prescribing it gives you a high degree of assurance of obtaining the desired anti-infective action in this as in a wide variety of bacterial diseases.

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Adult dosage: 2 capsules four times a day.

Side effects: Panmycin Phosphate has a very low order of toxicity comparable to that of the other tetracyclines and is well tolerated clinically. Side reactions to therapeutic use in patients are infrequent and consist principally of mild nausea and abdominal cramps.

Albamycin also has a relatively low order of toxicity. In a certain few patients, a yellow pigment has been found in the plasma. This pigment, apparently a metabolic by-product of the drug, is not necessarily associated with abnormal liver function tests.

Urticaria and maculopapular dermatitis, a few cases of leukopenia, and agranulocytosis have been reported in patients treated with Albamycin. All of these side effects rapidly disappeared upon discontinuance of the drug.

Caution: Since the use of any antibiotic may result in overgrowth of nonsusceptible organisms, constant observation of the patient is essential. If new infections appear during therapy, appropriate measures should be taken.

As with any serious infection, therapy of peritonitis with Panalba or other antibacterial agents is adjunctive to surgical procedures and supportive therapy.

Inflammatory process of the peritoneum

*Trademark, Reg. U. S. Pat. Off.

The Upjohn Company
Kalamazoo, Michigan

Upjohn

75th year

Panalba*

your broad-spectrum antibiotic of *first* resort

In Memoriam

Kenneth G. Rew, M.D.

1905 - 1961

We mourn the loss of Dr. Kenneth G. Rew who died on January 18, 1961, of a coronary thrombosis.

Dr. Rew was born on July 15, 1905, in Davenport, Washington. He obtained his B.A. degree from the University of Oregon in 1927 and his M.D. degree form the University of Oregon Medical School in 1931. From 1931 to 1932 he took his internship at the Swedish Hospital, Seattle, Washington. In 1931 and 1932 he did his postgraduate training in psychiatry at the Henry Phipps Psychiatric Clinic, Baltimore, Maryland. He served as an Assistant Physician at the Eastern Oregon State Hospital until 1937. He completed his psychiatric residency at the Payne Whitney Psychiatric Clinic, New York Hospital, from 1937 to 1938. Dr. Rew was certified by the American Board of Psychiatry and Neurology in 1938 and was recently elected a Fellow in the American Psychiatric Association. He was an instructor in psychiatry at Cornell Medical College from 1937 to 1939, and an instructor of psychiatry and an Assistant Professor of psychiatry, University of California Medical School from 1939 to 1947.

Dr. Rew entered the Army reserve on June 15, 1931. From 1942 to 1943 he was with CARTC as Chief of Mental Hygiene Clinic. From 1943 to 1944 he served with the 98th Infantry Division as Division Psychiatrist and from 1944 to 1945 at Tripler as Chief of the NP Section. He was recalled to active duty during the Korean War and from 1951 to 1952 was stationed at the U.S.A. Hospital, Fort Bragg, as Chief of the NP Service. He retired from the Army Medical Corps with the rank of Lieutenant Colonel on June 30, 1956.

KENNETH G. REW, M.D.

Dr. Rew came to Phoenix, Arizona, and joined the Veterans Administration Hospital as Chief of the Mental Hygiene Clinic in 1947 where he remained until 1953 except for the time spent in the service from 1951 to 1952. From 1953 to 1954 Dr. Rew was at Winter VA Hospital in To-

peka, Kansas. Here he was Chief, Physical Medicine and Rehabilitation, Assistant Chief of Professional Services and Acting Chief of Professional Services. He was active in the training program of psychiatric residents in the Menninger School of Psychiatry. He returned to Phoenix, Arizona, to enter full-time practice of psychiatry and neurology in November, 1954. Dr. Rew also conducted teaching seminars on psychiatry and psychotherapy for the staff of the VA Hospital as well as being active in matters pertaining to the field of psychiatry in the Maricopa County Medical Society. He was an active supporter in the formation of the Arizona Psychiatric Society and at the time of his death was chairman of a committee to study the relationship of psychiatry with clinical psychology and psychiatric social work. He had also recently started a seminar for the psychiatrists in this area to meet and continue the study of psychoanalytic theory and concepts. Dr. Rew was on the staff of the Barrows Neurologic Institute.

It is evident that Dr. Rew's interests covered a wide range including administration, clinical work and teaching. He had a remarkable capacity to keep abreast of new developments as was manifest in his teaching and in his private practice. He was truly a scholar who loved to share his knowledge and understanding with his fellow workers. His energies and interests were stimulating to those who came in contact with him. As a teacher he received some of his greatest pleasures and satisfactions.

His wife, Esther Rew, resides in Phoenix. A married daughter, Mrs. Linda Davidson, lives in Pasco, Washington. A daughter, Joan, attends college in Cheney, Washington. His son, Stuart, is in military service in Djakarta.

Those close to Dr. Rew knew him as a person who lived a "full life" with the enthusiasm and ability to have fun and enjoy a variety of interests. His zest was infectious to his friends and colleagues. He enjoyed sports and outdoor activities and he was an active participant up to the time of his death in fishing, boating, archery, hunting and camping. He was also a student and teacher of the great out-of-doors to those who were fortunate enough to accompany him. He was fond of music and especially jazz.

To those who knew Ken there will always be the feeling that they had a true friend in him and the qualities of warmth, humility, compassion, honesty, and freedom from malice or pettiness will long be in their thoughts. His patients, friends, and colleagues will miss him and forever hold a fond memory and a sense of loss at his premature and untimely death.

James M. Kilgore, Jr., M.D.


Schering
for allergies
that are
"out of control"
METRETON®
cortic oid-antihistamine compound TABLETS

Topics of Current Medical Interest

PUBLIC HEALTH IN ARIZONA — 1959-60

In the September-October issue of "Arizona Public Health News" appears the annual report of the Arizona State Department of Health for the fiscal period 1959-60. In the space of some 48 pages is given a brief account of the varied activities of the Department.

Dr. Salsbury, the Commissioner, in his section of the report, finds a number of sources for satisfaction in the accomplishments of his Department in recent years. The State Public Health Laboratories in Phoenix with branches in Tucson and Flagstaff are now adequately housed, staffed and equipped; increased State funds are now available through the Departments of Health and of Welfare for use in the control of tuberculosis; staff salaries, while still low, have been considerably improved; programs of dental public health, veterinary public health and of multiphasic screening for chronic diseases have been launched; new hospitals, nursing homes and clinics have been built or improved; the interest of the medical and dental societies in public health has become more active; and finally, the Legislature has shown an increased measure of interest in the affairs of the Department.

From the reports of the several divisions of the Department there are a number of interesting points:

During the period October 1, 1957 to June 30, 1960, a total of 47,572 blood samples from around the State were tested to determine high sugar levels. Of these, 1689 gave suspicious results. A total of 934 individuals were referred to their private physician for further evaluation. At least, 278 were considered by their physicians to be suffering from diabetes, not previously recognized.

There were 34,483 births in the State during the year. Thirteen mothers died as a result of child birth. There were 438 fetal deaths and 1145 babies who died during the first year of life.

The Public Health Laboratory examined the heads of 995 animals suspected of having rabies. Of these, rabies was confirmed in only 13 instances.

The number of cases of syphilis reported in the infectious stages showed an increase of 118 over the previous year. Ten per cent of these new cases of infectious syphilis were among teenagers.

The increasing importance of air pollution as a sanitary problem in the urban areas of Arizona is emphasized.

Tuberculosis continued to be a problem of major importance, 808 new cases having been reported in the State during the year.

On the whole this report shows progress, but one is impressed with a lack in the State Health Department in keeping the public well informed on important health problems. It is unfortunate that this report in many sections shows the want of clear writing, so that it is not possible to learn from it just what has been accomplished during the year.

Hugh H. Smith, M.D., M.P.H.

BOARD OF MEDICAL EXAMINERS STATE OF ARIZONA

The Board of Medical Examiners of the State of Arizona at a regular meeting held Saturday, January 21, 1961, issued certificates to practice medicine and surgery in this State to the following doctors of medicine:

ADAMS, Milton Dean (GP), 2850 Madison, Yuma, Arizona. AHSTROM, JR., James Peter (OrS), 555 Monroe Avenue, River Forest, Illinois.

BALDAUF, Leonard Clair (GP), 1001 N. Swan Road, Tucson, Arizona. BAXTER, Allison Gail (GP), 6 West Wilson St., Batavia, Illinois.

BLUMGREN, John Edgar (GP), 114 E. 4th St., Vinton, Iowa. BODASKI, Albert Alexander (GP), Harmony, Minnesota. BOS, Louis Henry (GP), 1513 West Thomas Road, Phoenix, Arizona. BROWN, Norman Baillie (ObG), Maricopa Co. Gen. Hosp., Phoenix, Ariz.

CASEY, JR., Ira LaMont (GP), Arizona State Hospital, Phoenix, Arizona. CHARNETSKY, Robert Celeste (GP), 3919 W. Encanto Blvd., Phoenix, Arizona. COOPER, William Leroy (S), 275 Paw Paw Ave., Coloma, Michigan. CREW, Philip Ives (ObG), 1911 1st Ave., S.E., Cedar Rapids, Iowa.

DEISSLER, Edgar James (Ind), Douglas Hospital, Douglas, Arizona. DENT, Townsend Edward (GP), 4823 E. Mulberry Dr., Phoenix, Arizona. DI CENSO, Dino (GP), 1106 W. Glenrosa, Phoenix, Arizona. DWYER, Bernard Blake (GP), 113 Main Avenue, Clinton, Iowa.

FELDMAN, Martin Harold (N), Jefferson Med. College Hosp., Philadelphia, Penn.

GILBERT, James Marvin (GP), 1013 Litchfield Road, Goodyear, Arizona.

HALEY, Jack Arnold (GP), 140 Litchfield Road, Goodyear, Arizona. HARTIG, Otto Joseph (GP-GS-Pr), 907 Morgan Avenue, Downs, Kansas. HILBURN, Lynn (GP-GS), 119 S. Marshall St., Henderson, Texas. HOFFMAN, Clifford Joern (U), 116 N. Tucson Blvd., Tucson, Arizona.

IRWIN, Robert Steele (U), 425 E. Wisconsin Ave., Milwaukee, Wis.

JAMES, Norman Alva (GP), 8321 N. Broadway, St. Louis, Missouri. JOHNSTON, Raymond Foidell (Pr), 3 West 27th St., Kearney, Nebraska. JOSSELYN, Irene Milliken (P), 5051 N. 34th Street, Phoenix, Arizona.

KNIGHT, James Harry (Anes), 4710 Elmwood Court, Riverside, California. KUHN, Joseph Laesser (Anes), 88 West Utica St., Buffalo, New York.

LAING, Clarence Roland (Ped), 1 North 12th St., Phoenix, Arizona. LAVERTY, JR., John Kearney (Path), 350 West Thomas Road, Phoenix, Arizona.

MORGAN, Donald Pryse (GP), Pima County Hosp., Tucson, Arizona. MOWREY, Jack Irwin (GP), McNary Hospital, McNary, Arizona.

NORRIS, George Loren (I), 1819 E. 12th St., Winfield, Kansas.

ORGAN, JR., Claude Harold (S), 914 Medical Arts Bldg., Omaha, Nebraska.

PATTERSON, JR., Fred Lindley (GP), Box 830, Duncan, Oklahoma. PHELPS, Malcolm Elza (GP), 203 S. Macomb Ave., El Reno, Oklahoma. POPPENS, Arthur Dean (GS), 777 South Main St., Princeton, Illinois.

RILEY, Richard Robert (GP), Kanab, Utah.

SAWREY, Kendall Roy (I), 2930 N. 38th St., Phoenix, Arizona. SCHAEFFER, Annabelle Vincow (Ped), 2534 Cass Avenue, Tucson, Arizona. SCHNEIDER, Stanley Harvey (I), 2530 E. Broadway, Tucson, Arizona. STEIN, Hermann Benjamin (Anes), 751 Williams St., Denver, Colorado.

TABER, Thomas Henry (PH), Maricopa Co. Gen. Hosp., Phoenix, Arizona. THORNTON, George Hugh Malcolm (I-GE), 800 North 1st Avenue, Phoenix, Arizona. TINSLEY, III, James Whitfield (Oph), 208 Seneca Road, Richmond, Virginia. TROOP, Donald Edward (GP), New Cornelia Hospital, Ajo, Arizona.

demonstrating...

1 place the foam in your hand (one applicator full). Note the volume . . . plenty for an effective block.

2 cup your hand. Rub the foam into th creases which simulate folds of vagina and ce ical os. After extended rubbing . . . note how it ecomes heavy and creamy . . . how it covers an blocks.

3 n
fo
lo

PAT.

creases
ical os-
ecomes
blocks.

3 m
fo
lo

PAT.

emko®

VAGINAL FOAM*

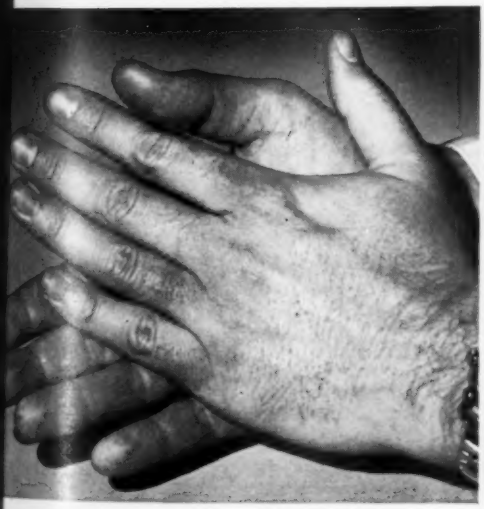
an entirely different approach to birth control

THESE PHOTOS SHOW HOW EMKO'S BLOCK OF FOAM SEALS THE CERVICAL OS ... AND HOW IT VANISHES COMPLETELY WITHOUT DOUCHING. ONLY EMKO FOAM, BECAUSE OF ITS VIRTUAL WEIGHTLESSNESS, CAN PROVIDE THIS DIAPHRAGM-LIKE PROTECTION ... AND STILL PERMIT NORMAL MARITAL RELATIONS WITH FULL PARTNER COOPERATION.

a proven spermicide ...

The total surface area of each bubble of Emko Vaginal Foam contains the proven spermicidal combination of Nonyl phenoxy polyoxyethylene ethanol 8.0% and Benzethonium Chloride 0.2%. As the sperm attempts to penetrate the block of foam, its erratic course exposes it constantly to the large contact area created by the bubbles. Thus, Emko Vaginal Foam assures maximum spermicidal exposure ... with a minimum weight of material.

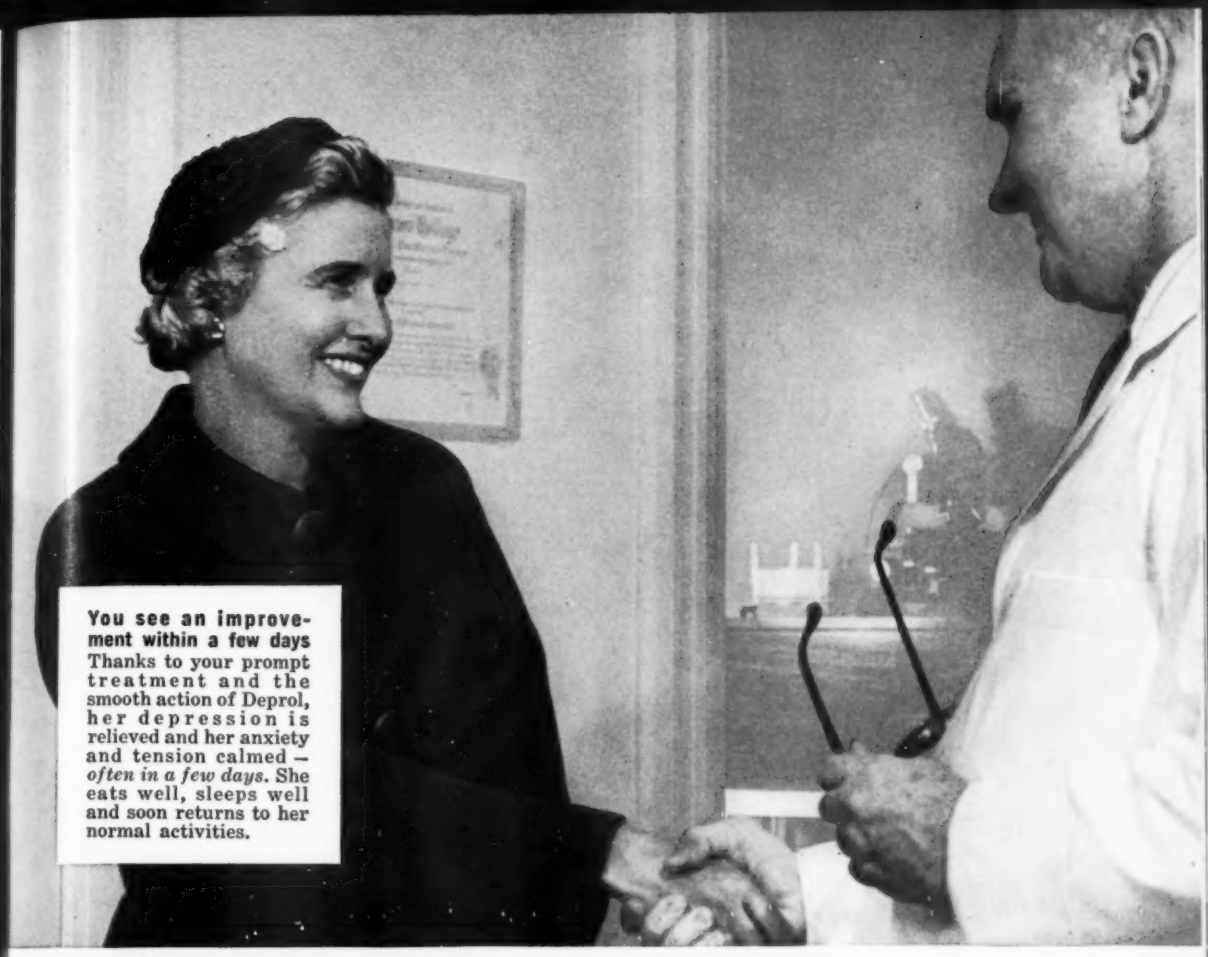
stocked by local drug stores / THE EMKO COMPANY • 7912 MANCHESTER AVENUE • ST. LOUIS 17, MISSOURI



3 now, rub your hands together. Work the foam into your skin just as you would a fine hand lotion.

4 it vanishes completely! No trace of the greasiness so common in creams and jellies. That's why Emko Vaginal Foam leaves no "after-mess" and no douching is needed!

*PAT. NO. 2,943,979 OTHER PATS. PEND.



Lifts depression...as it calms anxiety!

Smooth, balanced action lifts depression as it calms anxiety...rapidly and safely

Balances the mood – no "seesaw" effect of amphetamine-barbiturates and energizers. While amphetamines and energizers may stimulate the patient – *they often aggravate anxiety and tension.*

And although amphetamine-barbiturate combinations may counteract excessive stimulation – *they often deepen depression.*

In contrast to such "seesaw" effects, Deprol's smooth, *balanced* action lifts depression as it calms anxiety – both at the same time.

Acts swiftly – the patient often feels better, sleeps better, within a few days. Unlike the delayed action of most other antidepressant drugs, which may take two to six weeks to bring results, Deprol relieves the patient quickly – often within a few days. Thus, the expense to the patient of long-term drug therapy can be avoided.

Acts safely – no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function – frequently reported with other antidepressant drugs.

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate. **Supplied:** Bottles of 50 light-pink, scored tablets. Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES / *Cranbury, N. J.*

CD-2830

He needs his muscles working properly—
when they aren't, he needs
Trancopal

How to use *Trancopal*®
Brand of chlormezanone
in musculoskeletal "splinting"

Although "splinting" of a joint by skeletal muscle spasm is often protective, it can go too far or continue too long. Then spasm, pain and disuse may lead to wasting.

When you prescribe Trancopal, you can prevent "oversplinting." Trancopal will relax the spasm, ease the pain and get the muscle working again. Relaxation generally begins within half an hour, and the effects of one tablet last from four to six hours.

In addition to relaxing the muscle, Trancopal will mildly tranquilize the patient, reducing the restlessness and irritability that so often accompany discomfort. With Trancopal, the patient can soon start purposeful exercise and physical therapy.

Trancopal has been found very effective in the treatment of patients with low back pain (lumbago), neck pain (torticollis), bursitis, fibrositis, myositis, ankle sprain, tennis elbow, osteoarthritis, rheumatoid arthritis, disc syndrome and postoperative muscle spasm. Trancopal is available in 200 mg. Caplets® (green colored, scored) and in 100 mg. Caplets (peach colored, scored), bottles of 100.

Dosage: Adults, 1 Caplet (200 mg.) three or four times daily; children (5 to 12 years), from 50 to 100 mg. three or four times daily.

Winthrop LABORATORIES
New York 18, N.Y.

1591M

Future Medical Meetings

REGIONAL MEETINGS SUMMER — 1961

June 19-21, 1961
Survey of Human Genetics
University of Colorado School of Medicine
Denver, Colorado

June 28-July 1, 1961
69th Annual Meeting
Idaho State Medical Association
Sun Valley, Idaho

July 10-13, 1961
University of Colorado Medical Center
Course on Ophthalmology
Estes Park, Colorado

July 12-13, 1961
15th Annual Rocky Mountain Cancer Conference
Denver, Colorado

July 17-20, 1961
New Mexico Chapter, AAGP
Ruidoso, New Mexico

July 24-28, 1961
American College of Chest Physicians
Course on Cardiopulmonary Problems
Denver, Colorado

July 27-29, 1961
University of Colorado Medical Center
Dermatology for General Practitioners
Denver, Colorado

August 10-12, 1961
Rocky Mountain Radiological Society
Denver, Colorado

August 21-25, 1961
Colorado University Medical School
Pediatrics
Estes Park, Colorado

August 23-26, 1961
Nevada State Medical Association
and Reno Surgical Society
Reno, Nevada

September 13-15, 1961
Utah State Medical Association and
Rocky Mountain Medical Conference
Salt Lake City, Utah

NATIONAL TUBERCULOSIS ASSOCIATION

The National Tuberculosis Association, the American Thoracic Society and the National Conference of Tuberculosis Workers will hold their joint annual meeting May 21-25, 1961 at the Netherland Hilton Hotel, Cincinnati, Ohio.

Biennial Western Conference on Anesthesiology
May 16, 17, 18, 1961
Sheraton Hotel – Portland, Oregon

WORLD CONGRESS OF PSYCHIATRY

The Third World Congress of Psychiatry, June 4-10, 1961 in Montreal, Canada, is being held at the invitation of McGill University and under the auspices of the Canadian Psychiatric Association. Meeting on the American Continent for the first time, the Congress is expected to attract some 3000 delegates from 62 nations. Representatives will come from psychiatry and such allied fields as general medical practice, psychology, biochemistry, nursing, sociology, anthropology, social work, and pharmacology.

TRUDEAU SCHOOL OF TUBERCULOSIS AND OTHER PULMONARY DISEASES

TRUDEAU SCHOOL OF TUBERCULOSIS
and
OTHER PULMONARY DISEASES
Forty-Sixth Session
1961

The Trudeau School of Tuberculosis and Other Pulmonary Diseases will hold its Forty-sixth Session in Saranac Lake, N.Y. from June 5-23, 1961.

CLASSIFIED

Registered pharmacist, 33 years old, family man with 12 years experience wishes to establish professional pharmacy in medical clinic, or will operate one already established on a permanent basis. Write or phone Art Ellico R. Ph., 209 E. 14th Ave., Sault Ste. Marie, Mich. Melrose 29560. Can furnish unlimited recommendations from physicians.

CLINIC MANAGER

Experienced clinic manager available. For complete brochure write Box CL-9 % Arizona Medicine.

PHYSICIANS' DIRECTORY

Plastic and Reconstructive Surgery

CLARE W. JOHNSON, M.D., F.A.C.S., F.I.C.S
Diplomate of the
American Board of Plastic Surgery
Park Central North — 461 W. Catalina Dr.
Phone CR 4-5713 — Phoenix, Arizona

PROCTOLOGY

WALLACE M. MEYER, M.D.
PROCTOLOGY
Park Central Medical Bldg.
Phone CR 4-5632
550 W. Thomas Road — 216 Patio B
Phoenix, Arizona

JAMES T. JENKINS, M.D.
Fellow American Proctologic Society
Fellow American College of Surgeons
Fellow International College of Surgeons
Practice Limited to Diseases of the Anus, Rectum and Colon
2021 N. Central Ave.
Phoenix, Arizona — Phone AL 2-2822

PSYCHIATRY

CARL BREITNER, M.D.
Psychiatry
AL 2-9108
1515 N. 9th St. Phoenix, Arizona

LEO RUBINOW, M.D.
PSYCHIATRY
AM 6-0630
224 E. Thomas Rd. Phoenix, Arizona

SPEECH PATHOLOGY

ROBERT N. PLUMMER, Ph.D.
SPEECH PATHOLOGIST
Advanced Member
American Speech and Hearing Association
Diagnoses Speech and Swallowing Therapy
240 W. Osborn Rd. Phone AM 5-0071
Phoenix, Arizona

RADIOLOGY

R. LEE FOSTER, M.D., F.A.C.R., F.A.C.P.
MARTIN L. LIST, M.D., GEORGE A. GENTNER, M.D.
Diplomates of American Board of Radiology
Diagnostic Roentgenology, X-Ray and Radium Therapy
510 Professional Bldg. 1313 N. Second St.
Phone ALpine 3-4105 Phone ALpine 8-3484
Phoenix, Arizona

MARCY L. SUSSMAN, M.D., F.A.C.R.
Diplomate of American Board of Radiology
E. LAWRENCE GANTER, M.D.
Diplomate of American Board of Radiology
DIAGNOSTIC RADIOLOGY
THERAPEUTIC RADIOLOGY
RADIOISOTOPES
1130 E. McDowell Rr.
Telephone ALpine 8-1601 Phoenix, Arizona

SURGERY

DELBERT L. SECRIST, M.D., F.A.C.S.
123 South Stone Avenue
Tucson, Arizona
Office Phone MA 2-3371 Home Phone EA 5-9433

DONALD A. POLSON, MD., M. Sc.
GENERAL SURGERY
Certified by the American Board of Surgery
550 W. Thomas Road
Phone CRestwood 4-2081
Phoenix, Arizona

PHYSICIANS' DIRECTORY

ALLERGY

E. A. GATTERDAM, M.D.

American College of Allergists
Academy of Allergy

American College of Chest Physicians

15 E. Monroe St., Professional Building
Office Hours: 11 A.M. to 5 P.M.
Phoenix, Arizona

DANIEL H. GOODMAN, M.D., F.A.C.P.

Diplomate American Board of Internal Medicine
American College of Allergists
American Academy of Allergy

31 W. Camelback Road CR 7-3337
Phoenix, Arizona

HOWARD M. PURCELL, JR., M.D.

American Board of Pediatrics
American Academy of Pediatrics
American College of Allergists
ALLERGY OF CHILDREN

322 W. McDowell Rd. PHOENIX, ARIZONA

DERMATOLOGY

GEORGE K. ROGERS, M.D.

DERMATOLOGY

Diplomate of American Board of
Dermatology and Syphilology

Phone ALpine 3-5264
105 W. McDowell Road Phoenix, Arizona

WILLIAM SNYDER, M.D.

Diplomate of the American Board of Dermatology

Diseases of the Skin

Skin Cancer — Cutaneous Allergy

2021 N. Central Ave. — ALpine 3-8383
PHOENIX, ARIZONA

GYNECOLOGY & ENDOCRINOLOGY

JOSEPH B. RADDIN, M.D.

Practice limited to

MEDICAL GYNECOLOGY & ENDOCRINOLOGY

706 Professional Building
15. E. Monroe — Phoenix, Arizona
Phone ALpine 2-3577

MALIGNANT DISEASE

JAMES M. OVENS, M.D.
F.A.C.S .F.I.C.S.

Diplomate American Board of Surgery

Cancer and Tumor Surgery

X-ray and Radium Therapy

608 Professional Bldg. Phone ALpine 8-8074
Phoenix, Arizona

A. L. LINDBERG, M.D.

JOHN W. VOSSKUHLER, M.D.

Neoplastic Diseases
Tucson Tumor Clinic

721 N. 4th Ave., Tucson, Arizona
Phone MAin 3-2531

ORTHOPEDIC SURGERY

THE ORTHOPEDIC CLINIC
ORTHOPEDIC SURGERY

W. A. Bishop, Jr., M.D. — Alvin L. Swenson, M.D.
Ray Fife, M.D. — Sidney L. Stovall, M.D.
T. H. Taber, Jr., M.D.

Fellows of the American College of Surgeons
Diplomates of the American Board of Orthopedic Surgery

2620 N. 3rd St. — Phoenix, Arizona — CR 7-6211

LABORATORIES

PHARMACY DIRECTORY

LABORATORIES

you can't prescribe a more effective antibiotic than ERYTHROCIN®

Erythromycin, Abbott

How much "spectrum" do you need in treating an infection? Clearly, you want an antibiotic that will show the greatest activity against the offending organism, *and the least activity against non-pathogenic gastro-intestinal flora.*

Weigh these criteria—and make this comparison—when treating your next coccal infection. Erythrocin is a medium-spectrum antibiotic, notably effective against gram-positive organisms. In this it comes close to being a "specific" for coccal infections—*which means it is delivering a high degree of activity against the majority of common infection-producing bacteria.*

And against many of the troublesome "staph" strains—a group which shows increasing resistance to penicillin and certain other antibiotics—Erythrocin continues to provide bactericidal activity. Yet, as potent as Erythrocin is, *it rarely has a disturbing effect on normal gastro-intestinal flora.* Comes in easy-to-swallow Filmtabs®, 100 and 250 mg.

Usual adult dose is 250 mg. every six hours. Children, in proportion to age and weight. Won't you try Erythrocin?

®Filmtab—Film-sealed tablets, Abbott.

ABBOTT

103204

Percodan tablets effectively relieve pain through a range of

intensities commencing with moderate pain and extending

through major traumatic areas into further regions of severe pain

Percodan®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC)

TABLETS

for pain

prompt **relief**
profound **relief**
prolonged **relief**

ACTS FASTER—usually within 5-15 minutes. **LASTS LONGER**—usually 6 hours or more. **MORE THOROUGH RELIEF**—permits uninterrupted sleep through the night. **RARELY CONSTIPATES**—excellent for chronic or bedridden patients.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit forming. Federal law permits oral prescription.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

Also available—for greater flexibility in dosage—PERCODAN®-DEMI: The PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

LITERATURE AVAILABLE ON REQUEST

Endo **ENDO LABORATORIES**
Richmond Hill 18, New York

*U.S. Patent Nos. 2,628,185 and 2,907,768

INDEX TO ADVERTISERS

Abbott Laboratories 9A, 10A, 99A
Ames Inc. .....Inside Back Cover
Arizona Dynex 44A
Burroughs-Wellcome Co., Inc. 11A

Butlers Rest Home 71A

Camelback Hospital 36A
Camelback Professional Building 42A
Case, G. M., Laboratories, Inc. 60A
Classified Advertising 71A
Coca Cola Co. 44A

Doctors Directory 71A

Emko Company 64A, 65A
Endo Laboratories 81A

Franklin Hospital 60A

General Electric Co. — X-Ray Division 8A
Glenbrook Laboratories 43A

Hillcrest Medical Center 71A
Hobby Horse Ranch School 71A

International Latex Corporation 12A, 13A

Las Encinas Sanitarium 42A
Lederle Laboratories 136, 137, 53A, 68A
Lilly, Eli &Co. .....Front Cover, 26A
Loftins Business Forms 78A
Lorillard Company 66A

Maltbie Laboratories 60A, 77A
Mead Johnson & Company .....Back Cover
Merck-Sharp & Dohme 54A
Medical & Dental Finance Bureau 32A

National Casualty Co. 78A
Nurses Directory 71A

Parke-Davis & Co.....Inside Front Cover, 1A
PBSW Office Equipment Center 63A
Pharmacy Directory 74A
Physicians Casualty Association 77A

Robins, A. H. & Co. 24A, 82A
Roche Laboratories 35A
Roerig, J. B. & Co. 5A, 28A
Ryan Evans Drugs 78A

Sardeau, Inc. 23A
Schering Corporation 25A, 61A
Searle, G. D. & Co. 55A
Squibb, E. R. & Sons, Co. 30A, 31A, 76A
Standard Brands Inc. 29A

Upjohn Co. 56A, 57A

Wallace Laboratories 7A, 45A, 67A
Wayland Drugs 77A
Wesson Oil & Snowdrift Sales Co.....46A, 47A
Winthrop Laboratories 3A, 37A, 69A

once again, an active hand in "doing"—

PABALATE®

Robins

mutually potentiating nonsteroid antirheumatics

"superior to aspirin"[2] and with a "higher therapeutic index"[1]

In each yellow enteric-coated PABALATE *tablet:*

Sodium salicylate (5 gr.) 0.3 Gm.
Sodium para-aminobenzoate (5 gr.) 0.3 Gm.
Ascorbic acid.....50.0 mg.

When sodium should be avoided—

PABALATE®-SODIUM FREE

In each pink enteric-coated PABALATE-SODIUM FREE *tablet:*

Same formula as PABALATE, with sodium salts replaced by potassium salts.

When conservative steroid therapy is indicated—

PABALATE®-HC

Pabalate with Hydrocortisone

In each light blue enteric-coated PABALATE-HC *tablet:*

Same formula as PABALATE-SODIUM FREE, plus hydrocortisone (alcohol) . . . 2.5 mg.

1. Barden, F. W., et al.: J. Maine M. A. 46:99, 1955.
2. Ford, R. A., and Blanchard, K.: Journal-Lancet 78:185, 1958.

A. H. ROBINS COMPANY, INC., RICHMOND 20, VIRGINIA

Making today's medicines with integrity . . . seeking tomorrow's with persistence.

new...unique prolonged antipruritic action in a pleasant-tasting chewable tablet

tacaryl™

chewable tablets

METHDILAZINE, MEAD JOHNSON

prolonged antipruritic / antiallergic action...
not dependent on delayed intestinal release

Itching in children can now be controlled on b.i.d. dosage with a long-acting[1] antipruritic/antiallergic chewable tablet your pediatric patients will enjoy taking. They can also benefit by the effectiveness of Tacaryl Hydrochloride in controlling symptoms in a wide variety of allergic conditions,[2-8] including hay fever and perennial rhinitis.

dosage: One Chewable Tablet (3.6 mg.) twice daily. Adjustment of dose or interval may be desirable for some patients.

contraindications: There are no known contraindications.

side effects: Drowsiness has been observed in a small percentage of patients. Dizziness, nausea, headache, and dryness of mucous membranes have been reported infrequently.

cautions: If drowsiness occurs after administration of Tacaryl Chewable Tablets or Tacaryl Hydrochloride, the patient should not drive a motor vehicle or operate dangerous machinery. Since Tacaryl Chewable Tablets or Tacaryl Hydrochloride may display potentiating properties, it should be used with caution for patients receiving alcohol, analgesics or sedatives (particularly barbiturates). Because of reports that phenothiazine derivatives occasionally cause side reactions such as agranulocytosis, jaundice and orthostatic hypotension, the physician should be alert to their possible occurrence... though no such reactions have been observed with Tacaryl Chewable Tablets or Tacaryl Hydrochloride.

supplied: Pink tablets, 3.6 mg., bottles of 100.

references: (1) Lish, P. M.; Albert, J. R.; Peters, E. L., and Allen, L. E.: Arch. internat. pharmacodyn. *129*:77-107 (Dec.) 1960. (2)Howell, C. M., Jr.: North Carolina M. J. *21*:194-195 (May) 1960. (3) Clinical Research Division, Mead Johnson & Company. (4) Wahner, H. W., and Peters, G. A.: Proc. Staff Meet. Mayo Clin. *35*:161-169 (March 30) 1960. (5) Crepea, S. B.: J. Allergy *31*:283-285 (May-June) 1960. (6) Crawford, L. V., and Grogan, F. T.: J. Tennessee M. A. *53*:307-310 (July) 1960. (7) Spoto, A. P., Jr., and Sieker, H. O.: Ann. Allergy *18*:761-764 (July) 1960. (8) Arbesman, C. E., and Ehrenreich, R.: New York J. Med. *61*:219-229 (Jan. 15) 1961.

Mead Johnson Laboratories

Symbol of service in medicine

MARCH, 61 435R63